Croonian Lectures
ON
ADDISON'S DISEASE.

Delivered before the Royal College of Physicians,

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LECTURE I.—PART I.

MR. PRESIDENT AND GENTLEMEN,—When, upon my appointment to the honourable position of Croonian Lecturer for the present year, I selected for my subject Addison's Disease, the first, and perhaps the chief, reason which influenced me in making this selection was, that the study of this remarkable disease has always been to me especially interesting, and has engaged my attention at every available opportunity ever since the announcement of its discovery. But another reason, which also weighed much with me when making choice of my subject, was, that a discovery which must be counted among the great medical discoveries of the present century, which may with propriety be ranked side by side with Dr. Bright's discovery of the relation between dropsy and disease of the kidneys, has never, up to this time, been made the subject of any of the lectures delivered before this College, of which the discoverer was so distinguished a fellow.

And now, Sir, before I address myself to my proper subject—Dr. Addison's discovery,—permit me to say a few words respecting Dr. Addison himself; for it seems to me that to show, though of necessity but briefly, from what and how Thomas Addison rose to become one of the most eminent physicians and ablest clinical teachers of our day is, on the present occasion, only a fitting tribute to his memory.

Dr. Addison belonged to that class of men, so numerous in this country, who, by their abilities and energy, have raised themselves from the lower ranks of society to the most exalted positions in their respective callings. He was born in the autumn of 1795, at Long Benton, a small rural village in Northumberland, situated about three and a half miles from Newcastle-on-Tyne. His father was a grocer and flour-dealer; but, though of humble station, he must have been a man of enlarged views, for he not only gave his son the best elementary education within his reach, but he aspired to start him in life on a much higher social level than his own. Dr. Addison himself told me that his father had designed him for the law, but that personal predilections had induced him to embrace the profession of medicine. Addison was first sent, with his brother, to a school kept in a roadside cottage by one John Rutter, the parish clerk; from whom, some years later, Robert, the son of George Stephenson, received his elementary education in the same house, whilst his father was engine-wright at the neighbouring Killingworth collieries. Addison was subsequently removed to a school of a somewhat higher class, either at Newcastle-on-Tyne, or at a place called Three-mile Bridge, on the great North road. From thence he went to Edinburgh, and became a medical student. Fortunately, his father had the means as well as the desire to afford his son every possible advantage for acquiring a knowledge of his profession. The opening out of collieries in the parish had largely increased his custom among the pit-folk of the neighbourhood, and he had become rich for his station. Addison therefore, after passing through the necessary curriculum of medical study and taking his degree of M.D., was enabled to come to London, where he first became house-surgeon to the Lock Hospital, and subsequently physician to the Carey-street Dispensary, and also, I believe, to the Royal Infirmary for Children and Women in Waterloo-road. Soon after his arrival in London he had entered himself as a pupil at Guy's Hospital, and in a comparatively short time he was raised to be a member of the medical staff. In this position he speedily made for himself a great reputation as a practical physician and clinical teacher. The wide experience acquired in such various fields of study, together with his own great natural powers of insight, sufficiently explain the apparently intuitive knowledge of disease and almost unrivalled powers of diagnosis which formed the basis of Addison's great and real success in professional life. For his success was real. It was not small if estimated in the lower sense by its pecuniary results, but if estimated in the far higher sense by achievement and reputation, his success was great indeed, and such as only a favoured few can hope to equal. In some subjects he was far in advance of his day. Pathological truths which he enunciated thirty years ago, with respect to diseases of the lungs, have only recently won their way to general acceptance. The discovery with which his name will ever be associated was published to the medical world nearly twenty years ago, and has not yet been generally accepted, nor even generally understood. Dr. Addison died at Brighton in June, 1860, and was interred at Lanercost Abbey, in Cumberland, from whence his family had originally sprung, and where his paternal grandfather had been a respectable yeoman. I trust, Sir, that this slight sketch of one of the most eminent members of our body will not be deemed an unsuitable prelude to lectures devoted to the elucidation of his most famous work.

Dr. Addison had been for nearly thirty years on the medical staff of Guy's Hospital when he discovered the disease to which Trousseau, if I mistake not, was the first to apply the name of "Addison's disease." To quote his own words, he had "for a long period met with a very remarkable form of general anæmia, occurring without any discoverable cause whatever—cases in which there had been no previous loss of blood, no exhausting diarrhœa, no chlorosis, no purpura, no renal, splenic, miasmatic, glandular, strumous, or malignant disease"; and which he therefore termed "idiopathic anæmia." "The disease," he said, "presented in every instance the same general character, pursued a similar course, and, with scarcely a single exception, was followed, after a variable period, by the same fatal result." He further stated that the leading and characteristic features of the morbid state to which he would direct attention were, "anæmia, general languor and debility, remarkable feebleness of the heart's action, irritability of the stomach, and a peculiar change of colour in the skin, occurring in connexion with a diseased condition of the supra-renal capsules." "The characteristic discolouration," he says, "pervades the whole surface of the body, but is commonly most strongly manifested on the face, neck, superior extremities, penis and scrotum, in the flexures of the axillæ and round the navel. It may be said to present a dingy or smoky appearance, or various shades of deep amber or chesnut-brown; and, in one instance, the skin was so universally and so deeply darkened that, but for the features, the patient might have been mistaken for a mulatto." This discolouration, he further remarked, was never attended by "a harsh, dry condition of the surface." To complete the picture, he added, in different passages, that there were occasionally actual vomitings, palpitation and breathlessness on exertion, indications of disturbed cerebral circulation, and a strongly marked tendency to the formation of fat, in striking contrast to the failure and exhaustion observable in every other respect.

He had, therefore, before his mind's eye a distinct and definite morbid state, the nature and cause of which he sought to discover; and his discovery, when made at length, was no chance hit, but the result of long and careful investigation. Accurate clinical observation had first led him to discriminate, in the living patient, a remarkable train of obscure and apparently causeless symptoms, always of fatal augury; and, whilst searching out their hidden pathological cause, it was only after the careful exclusion of all other morbid conditions that he referred them to disease which he found seated in the supra-renal capsules. It seems necessary to dwell upon this point because, at a subsequent period, when he came to publish his monograph, Addison deviated from his own accurate conception, and subjoined to his own cases several others, which he had not seen during life, which, so far as could be known, had presented no constitutional symptoms that could not be accounted for by malignant or other obvious disease, and in which there was only very partial discolouration—not at all corresponding with the graphic description I have quoted from the first pages of his book. These mistakes of Addison's were the more remarkable because, in the first place, as we have

seen, he himself states that the chief motive of his investigation had been to determine the cause of symptoms which could not be accounted for by any discoverable disease; and, in the second place, his great knowledge of skin affections must have made him familiar with the fact, that various organic and cutaneous diseases are attended by more or less pigmentation of skin, though none of them by pigmentation presenting all the peculiar characters of the discolouration which he had described. These mistakes were doubtless due to the enthusiasm of mind attendant on his discovery, which led him to endeavour to include as much as possible within its scope; but, unfortunately, their effect has been to confuse his own true clinical and pathological description, and to give rise to misconceptions which are still far from being eradicated. We have Dr. Wilks's authority for the fact that, at a later period, Addison's views were more in accordance with our present knowledge; but, unfortunately, he did not live to revise his monograph.

As with regard to most other discoveries, several previous observers had stumbled upon the facts which Addison discovered, but had failed to recognise the connexion between them. Nearly thirty years before the date of Addison's discovery, his eminent colleague, Dr. Bright, had observed and recorded, in his celebrated "Reports of Medical Cases," a case of Addison's disease. It was in all respects a well-marked example, and Addison included it in his monograph, where it stands as Case 5. Mr. Sibley also, in 1854, recorded in the Medical Register of the Middlesex Hospital a case of Dr. Seth Thompson's, which had presented all the main features of Addison's disease, including the discolouration of skin. The late Dr. Kirkes likewise reported a case that had occurred in St. Bartholomew's Hospital several years before the publication of Addison's discovery, in which the asthenia, nausea, vomiting, and faintness seen in Addison's disease had been observed during life, and in which, after death, the only lesion found was the particular lesion of the supra-renal capsules which I shall hereafter describe. At a more remote period than any of these, Dr. Schotte recorded, in the Halle Hospital Reports, a case almost typical as regards the clinical history and symptoms and also the pathological appearances, and in all respects closely resembling that of a girl who died under my care in 1865. It is true that neither in Dr. Kirkes's nor in Dr. Schotte's case was any discolouration of skin noted, but we need not therefore infer that it was necessarily altogether absent, seeing that in my own case, to which I have referred as almost parallel to Dr. Schotte's, the discolouration, though characteristic, was so slight that it might have been readily overlooked, more especially at a time when its importance as an indication of the nature of the disease was totally unknown. In such circumstances, we may be sure that the discolouration of the skin in Dr. Bright's and Dr. Seth Thompson's cases must have been well marked, or it would not have held the prominent place it does in the description of the symptoms. I refer to these two last cases with especial pleasure, because more striking illustrations can scarcely be adduced of a truth which I have always deeply felt, and which was so well expressed by our last Harveian orator, Dr. West—namely, that "mere details, of which, when we have ascertained them most certainly, we yet cannot see the purport or the uses, will sooner or later surely find their place."

I cannot, Sir, close these introductory remarks without some reference to two distinguished living members of our profession, but for whose labours Addison's discovery might possibly have attracted at the time little attention. Soon after the publication of the monograph, Mr. Jonathan Hutchinson gave a widespread impulse to the discussion of the subject by collecting and publishing all the cases he could obtain bearing upon the question of the reality of the disease and its relation to a morbid process in the supra-renal capsules. To Dr. Wilks we are even more deeply indebted for much of the advance made towards our present knowledge of the disease. In a succession of papers, published in Guy's Hospital Reports, he described all the chief symptoms of the disease, and more especially the pathological appearances in the supra-renal capsules, in a large number of cases which had either occurred in the practice of the hospital or had been submitted to him by other medical men for examination. He also prominently brought forward the truth, obscured by the admission of spurious cases into Addison's monograph, that all genuine cases of the disease are due to one and the same characteristic lesion of the supra-renal capsules.

Notwithstanding the misconceptions which have prevented the general recognition of the truth of Addison's discovery, we have made, as I have said, much advance in our knowledge of the disease since Addison's time. More than three hundred cases have now been recorded—some in almost every country in which medical science is cultivated. Of these many are unfortunately so imperfectly reported that no conclusions can fairly be drawn from them as to the existence of the disease; and others again, which present neither the clinical nor pathological conditions described by Addison, are obviously not cases of Addison's disease at all, although published as such. But, on the other hand, by far the larger number are true cases of the disease, having presented, in a more or less developed form, its characteristic clinical phenomena together with the particular lesion in the supra-renal capsules; whilst a very considerable proportion are what I may term "typical" cases—that is to say, cases in which not only the constitutional symptoms and discolouration of skin were more or less fully developed, but in which, also, no pathological lesion of any importance was found except the one particular lesion in the supra-renal capsules. Eight of these typical cases have come under my own care or observation, several of them in the Middlesex Hospital; and I pass now to the delineation of the living picture of Addison's disease, as it has repeatedly presented itself to me in these and other cases, unmistakable, almost at first sight, to one who held the key of the myatery supplied by Addison's discovery.

Progressive asthenia, having often originated without any apparent cause, and seldom dating from any definite period; an indescribable aspect of listlessness or depression; great languor and indisposition for exertion; almost invariably remarkable weakness of the heart's action, and small, feeble, compressible pulse; loss of appetite, irritability of stomach, nausea, and retching. There are usually more or less severe and frequent pains in the loins, hypochondria, or epigastrium; and, not uncommonly, also tenderness on pressure in one or both hypochondria, with an almost spasmodic rigidity of the abdominal muscles, as if they were instinctively contracted in order to protect the more deeply seated parts from pressure. In advanced cases vomiting is seldom absent, and is sometimes spontaneous and irrepressible; there are usually breathlessness and palpitation on making any muscular effort; frequent sighing or yawning, and sometimes persistent hiccough; generally faintness or giddiness on rising or even on being raised up in bed. Notwithstanding, however, the great feebleness, which is one of the invariable symptoms of the disease, there is, in uncomplicated cases, comparatively little or no real emaciation; but, on the contrary, together with some appearance of partial wasting, there is always a fair amount, and often a considerable excess, of subcutaneous fat, and the skin remains soft and smooth. The temperature, as a rule, is rather below the normal; the skin and the extremities are cool, if not cold, to the touch; the urine is often small in quantity, and generally of low specific gravity and deficient in solid constituents; the bowels are mostly confined; and the tongue usually remains clean and moist, until the advent of the typhoid symptoms during the last days of life. The mind is often clear to the last, but so great is the prostration in the latest stage of the disease that the patient lies in a drowsy, semi-comatose state, from which he can, nevertheless, generally be roused by questions addressed to him, and he then gives pertinent though slow and monosyllabic answers. In this stage of the disease the temperature falls considerably below the normal. Death takes place by asthenia, and sometimes, at the last, almost suddenly, apparently in syncope. There is, on the other hand, in many cases, towards the close of life, incoherence or delirium, sometimes low and muttering, sometimes more loud and active; and in this class of cases death often takes place in coma. In one of my own most typical cases the patient had a convulsive fit, and lay for some hours before death with firmly closed jaws and great rigidity of the muscles of the abdomen and extremities. He was seemingly unconscious; but whenever he was touched convulsive twitchings took place either of the face or of the whole body. Various other symptoms, equally referable to disturbance of the nervous system—such as vertigo, numbness and anæsthesia of the face and arms, and more rarely of the

lower extremities, dimness of sight and flashes of light before the eyes, noise in the ears and deafness, tremors, rigors, and even epileptiform and other seizures—have been recorded in a considerable number of cases as occurring in the course of the disease, and in a few as having been the principal symptoms observed during life, except the invariable languor and debility.

To this sketch of the characteristic constitutional symptoms of Addison's disease I must add a description of the peculiar change of colour in the skin, as it has struck my own eye in every advanced case. This peculiar change of colour consists, as is generally known, in a gradual darkening of the skin of various parts of the body or even of the whole body. The aspect of this discolouration, when fully developed, is very remarkable, and gives to the patient the appearance of belonging to one of the dark races of mankind. Most frequently it has a dusky, smoky, or yellowish-brown hue, but sometimes it is of an olive or green-brown colour, and, when deepest, approaches in parts to the tint of negro skin. The discolouration is never uniform over all parts of the body, but commences earlier and becomes deeper on some or all of the exposed parts—the face, neck, dorsum of hands and fingers; and on those parts which are naturally the seats of more pigment than the general surface—the axillæ, abdomen, groins, genital regions, nipples, and especially the areolæ. The deep discolouration of these last may, in my opinion, be regarded as one of the most decisive external signs of Addison's disease, and the appearance of small, well-defined black specks, like black moles or freckles, on already discoloured portions of skin, is, in my experience, another no less certain. Although sometimes universal, the discolouration is more frequently only distinctly obvious on certain parts of the body. Even in the latter cases, however, it probably affects in some degree the whole cutaneous surface, for on microscopical examination of parts of the skin, which by contrast with the dark parts appeared normal, I have found deposited also in them, though in comparatively small quantity, the pigment which imparts the abnormal colour to the skin. The transitions from the darker to the paler shades of the discolouration of different parts of the body are never abrupt, the darkest parts are never sharply-defined patches, but merge insensibly into the lighter, or apparently normal, portions of the surface. There is, however, one marked exception to this rule. When the skin has suffered any superficial abrasion or injury, or when the patient has been blistered at some recent period, the injured parts not only become much darker than the surrounding portions of the surface, but they present defined margins, coinciding with the extent of the cutaneous injury. The cicatrices of deeper injuries, on the contrary, usually remain pale, and are surrounded by a distinct border of more or less dark pigment, contrasting strongly with the ivory-like hue of the cicatricial tissue. Thus, in two of my own patients I found abruptly defined dark patches, in the first case on the hip, and in the second on the epigastrium, and I ascertained that they were the sites of blisters which had been applied some short time previously. I should mention that in the case of the second patient, who survived nearly two years, the dark patch gradually faded away, and before his death had ceased to be visible. On the other hand, in a third patient, the deep cicatrices caused by cupping on the hip, more than twenty years before, remained perfectly white, but each little scar was surrounded by a distinct border of dusky discolouration. It does not, however, require actual abrasion of the skin to excite a greater deposit of pigment in certain parts; slight local irritation of the surface appears, in not a few cases, to have produced the same effect. I have myself seen dark streaks on the skin corresponding with the lines of pressure exerted on particular parts by petticoat strings and garters, and the same circumstance has been noted by others. In a case recorded by Mr. Nicholson, in 1872, it is stated that the patient, a baker's lad, presented on his shoulders, dark stripes, corresponding to the bands by which the basket he carried was slung at his back.

The discolouration in Addison's disease is not entirely restricted to the skin, being also frequently found upon the mucous membrane of the lips, cheeks and gums, and also upon the tongue. On the lips it takes the form of an irregular bluish-black streak, running lengthwise, near the junction of the mucous membrane and the outer skin. It is seen on the gums and buccal mucous membrane in the form of irregular stains and patches, mostly of a brownish colour and with ill-defined margins. In two of my own cases the stains on the buccal mucous membrane have certainly corresponded with seats of irritation, produced by the pressure of ragged protruding teeth; but in other cases I have been unable to verify any such cause. These stains on the gums and buccal mucous membrane form another point of analogy between the discolouration in Addison's disease and the pigmentation natural to the dark races of men; for several lascars, who have come under my care in the hospital, have presented, on the same parts, stains very similar to those I have described. The discolouration of the tongue appears usually in sharply defined stains of a purplish-black or somewhat inky hue; and, in my cases, these stains have always been situated near the free margins of the organ. On the other hand, the conjunctivæ always remain normal; and the contrast between their pearly whiteness and the dusky hue of the discoloured skin is very striking, and involuntarily recalls the similar contrast in the mulatto or negro countenance.

We see, therefore, that the discolouration of skin in Addison's disease usually begins, and eventually becomes deepest, on those parts which are naturally the most liable to become pigmented, either by exposure to sun and air or by the excitement of certain physiological processes; and to these must be added such parts as may accidentally be subjected to the excitement of local irritation. In other words, this peculiar change of colour is, like many other pathological processes, merely an exaggerated, and therefore a morbid, development of a natural physiological process.

On microscopical examination of sections of the discoloured skin, the discolouration is seen to be due to deposit of yellowish-brown pigment in the deeper layers of the epidermis, more especially in the layer in immediate contact with the papillæ, whilst the more superficial layers and the true skin mostly remain free from pigment. Nevertheless I have found, in several cases, traces of pigment in some of the more superficial scales of the epidermis, and also pigment-granules deposited here and there in the cutis. Dr. Sidney Coupland also observed, on microscopical examination of sections of skin from one of my patients, pigment-granules, both isolated and in groups, in the connective tissue of the cutis, at some distance below the epidermic layer. The principal part of the pigment, however, is in every case deposited in the cells of the rete Malpighii and accumulated round their nuclei, but some of it is generally free, and irregularly distributed around and amongst their cells. Possibly this portion of the pigment has also been originally contained in cells, which have disintegrated and allowed the colouring matter to escape and become diffused. Dr. Riesel, of Halle, in his examination of the skin of two patients who had died of Addison's disease, found many pigmented connective-tissue cells in the papillary portions of the cutis; and Mr. Schäfer observed in the same portions of the skin, from a patient of Dr. Ringer's, "a number of irregularly-shaped corpuscles, apparently wander-cells, some of them perhaps connective-tissue cells, containing a considerable amount of pigment." The colouring matter in the patches on the tongue is deposited in a corresponding situation with that in the skin, being seated in the lower cells immediately overlying the papillæ, the superficial layer of the epithelium remaining quite free from pigment. To those who have carefully examined the skin of negroes, lascars, or persons belonging to the other dark races of men, it will be obvious from this description that the differences between their normal colouring and the abnormal pigmentation of Addison's disease are merely differences of degree, although in the former they are physiological conditions, and in the latter pathological causes have operated to produce them.

A PARAGRAPH in a contemporary would show that the inhabitants of Keighley are profoundly ignorant of the benefits of vaccination. So deep-rooted is their antipathy to the beneficent measure, that the Local Government Board has been compelled to write to the Board of Guardians threatening to apply for a mandamus to compel them to enforce the provisions for compulsory vaccination in their district. The guardians, in reply, question the authority of Gwydyr House in the matter, and allege that a large majority of the Keighley people are opposed to vaccination.

ON

"THE LEAST SACRIFICE OF PARTS" AS A LEADING PRINCIPLE OF SURGICAL PRACTICE.

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(*Concluded from p. 265.*)

THE third proposition remains now to be considered, and as it refers to accidental surgery it has probably a wider range of importance than the last, although, like the last, it is to be regarded as a means only by which the principle itself is to be carried out. The proposition is as follows:—"That, in accidental surgery, parts irreparably injured are alone to be removed, and no healthy tissues are to be sacrificed in order to perform a recognised and probably a named operation. That, to these ends, the surgeon ought to utilise even doubtfully viable integument, and may even leave a stump to granulate, when by so doing some portion of the shaft of a bone can be left, a joint saved, or amputation above a joint avoided."

In the surgery of the hand this principle ought to be a very binding one, and more especially in dealing with injuries to the thumb. In such, the surgeon is hardly justified, under any circumstances, in sacrificing the smallest portion of integument and soft parts in order to make what is called a good flap to cover a divided or crushed bone. When a thumb is smashed its removal may be justifiable—that is, the removal of the smashed parts; but no more ought to be sacrificed, and doubtfully viable skin should be preserved. In compound fractures of the thumb (that are not smashes) an attempt should be made to save the part under almost hopeless circumstances; a better stump and a longer stump being generally obtained by the adoption of this practice than by any other treatment.

To illustrate this proposition, the following cases may be adduced. They have been taken from my note-book as they came, and have not been selected.

CASE 44. *Compound fracture of the fingers from circular saw; parts left to nature; good recovery.*—William S——, aged thirteen, came under my care at Guy's Hospital on May 29th, 1873, for some injury to the fingers of his right hand. He had received it just before admission from a circular saw; the saw having cut off the little finger at the first phalanx, the ring and middle fingers near the metacarpo-phalangeal joint, and the index finger at the second phalanx. The parts were left to granulate and heal, and in a month a capital hand was given; the stumps of the fingers being good, and the cicatrix of the scars sound.

Had any amputation been performed upon these divided parts, the whole of the fingers would have been sacrificed and no stumps would have been left; the hand would therefore have lost the greater part of its value.

CASE 45. *Compound fracture of three inner toes; utilisation of skin of part; cure.*—William P——, aged thirty, was admitted into the accident ward of Guy's Hospital under my care on May 5th, 1873, for some injury to his foot caused by machinery.

On admission, the three inner toes of the right foot were severely crushed. The great toe was off at its first phalanx, and this bone was projecting from the soft parts. The end was therefore cut off by bone forceps to a level with the soft parts, and the second and third toes removed, all the integument that was not crushed being saved and carefully adjusted across the divided parts. The wound healed well. The portions of skin that were saved lived and divided the exposed parts into segments, the whole rapidly granulating and healing.

The value of the pieces of skin that were preserved was very great, the cicatrix of the wound being a soft and pliable one.

CASE 46. *Crushed foot; Chopart's amputation with long anterior flap; recovery; good stump.*—Henry H——, aged nineteen, came under my care at Guy's Hospital on Sept. 6th, 1861, with an injury to his right foot. He had received it a few hours before admision from a falling mass of iron. On examination the whole of the anterior portion of the foot was crushed, with the integument of the sole. The skin covering the dorsum of the foot was, however, intact. The ankle-joint with the heel were also uninvolved. I determined therefore to take off the anterior part of the foot in front of the astragalus and calcis, and to make a skin flap from the dorsum of the foot, saving as much as possible of the integument of the sole. By these means I was able to cover the anterior surface of the astragalus and calcis. The parts healed kindly after the operation, and left a capital stump. The man left the hospital on Nov. 23rd, about six weeks after the accident, convalescent. The tendo Achillis was not divided. I saw this man some months afterwards, and he was still well, with a capital foot.

CASE 47. *Crushed arm; removal of limb near shoulder-joint; rapid recovery.* (Reported by Mr. T. W. Richards.)—William G——, a labourer, aged thirty-four, was admitted into the accident ward on April 30th, 1873. He had been engaged in laying some rails on a railway, when an engine came along unexpectedly with passenger carriages, and knocked him down, the engine and train passing over the right arm. It was frightfully crushed nearly up to the shoulder-joint. Mr. Bryant at once removed the arm, dividing the soft parts and the bone where fractured; no flaps were made, but the parts were left. The axillary artery protruded, and was easily seized and twisted. The man lost very little blood during the operation, but he had lost a considerable quantity before. He had received also a deep wound, extending from the left eyelid down to the bottom of the nose. Carbolic oil was used as a dressing to both the cut and shoulder-joint, together with lint and strapping. Pulse 90; temperature 102°. Had any other form of amputation been performed, the arm must have been taken off at the shoulder-joint.

May 2nd.—Felt better and slept a little; he had not so much pain.

5th.—The wounds on his face were almost well; he was progressing favourably.

8th.—Improving; the granulations were very healthy; there was but little pain in the stump; he slept well, and his appetite was good.

15th.—There was a space of about an inch and a half by an inch not covered with skin; it was syringed with permanganate of potash lotion, and lint and strapping applied.

20th.—No bad sign; he said he felt almost well; he got up.

June 7th.—His progress was uninterrupted; he was walking about; there was only a small wound; the stump was getting well covered with skin.

He left the hospital on the 12th, with a good stump, seeming altogether well. An artificial arm was to be applied in a few weeks.

CASE 48. *Compound fracture of leg; amputation at knee; well.* (Reported by Mr. E. A. Jones.)—H. A. F——, a boy aged fourteen, was brought into the accident ward on the 9th Feb., 1874, with compound fracture of the left leg. He was riding in a van, and attempted to get out, in order that he might put a chain-break on the wheel whilst going down the incline at London-bridge. In attempting to alight, he placed his left foot on a spoke of the wheel; his foot slipped, and the leg fell into the wheel; it threw him down, and passed over his left leg just below the knee. On admission, the injured parts were completely crushed. He was placed under the influence of chloroform, and the limb was amputated at the knee-joint, the patella being left. He was in great pain after, but passed a good night. Pulse 120. The stump was dressed on the 12th. On the 14th there was some difficulty in passing his water, a catheter was consequently passed, and a small quantity of urine drawn off. Temperature 98·4°; pulse 96.

Feb. 25th.—Some reparation of the flaps has taken place.

March 3rd.—He suffered very great pain in the stump; the internal condyle could be seen looking white and healthy; there was very little suppuration. Pulse 100; temperature 99·1°.

9th.—The condyle had granulated over, and could not be seen; the wound was looking very healthy, but the pain continued, and prevented his sleeping. An injection of morphia was given him with good effect. A boil appeared

on his right cheek about the 13th, but lasted only three days; his appetite, which had been bad, was improving, and he seemed to be doing well.

20th.—The flaps of the stump had joined about the centre; his progress towards recovery was uninterrupted; he was able to get up on the 10th April, moving about in a chair a little later.

May 27th.—He got up daily; the wound had all but healed, though a slight scab existed at either side; the tissues over the bone were sound and painless, and a capital stump was formed. He left the hospital the following day.

CASE 49. *Crushed foot and leg; amputation at knee; recovery.* (Reported by Mr. E. A. Jones.)—Wm. E——, a labourer aged eighteen, was employed with another man in moving a truck to which was attached a pair of horses on the London and Brighton Railway. He was running to overtake his companions when he stumbled over a point, and fell with his right leg under the moving truck, just below the knee. He was admitted into the accident ward on Feb. 9th, 1874, with the leg crushed. The injured limb was amputated at the knee-joint, the patella being left. Pulse 122. He had not much pain following. Temperature 105·5°.

Feb. 15th.—The stump was dressed; he was quiet, but talked wildly. Pulse 125; temperature 101·5°.

18th.—The man had been quieter, but the stump was very open, the end of the femur being exposed. His appetite was not good, but he slept better.

25th.—He had been suffering great pain in his bowels—crampy pains; and an injection was given him, after which his bowels were open, and he was greatly relieved of the pain, his appetite also improving. The end of the femur was still much exposed, especially on the internal condyle.

March 3rd.—The condyles had granulated over. The wound was discharging very little; there was a dark spot near the lower border; just above it the bone could be felt, but it was covered by healthy granulations. The cartilage had disappeared.

7th.—He had slept very little at night, the stump causing him considerable pain. His bowels were again very irregular, and he was much easier after they were opened.

10th.—He was troubled with cramp in the left leg, which kept him awake. The external condyle looked dark, and the posterior flap had not united to the granulations. He was sick during the day, and had some redness about his left ear, and stiffness of his neck. During the night of the 10th he was very restless, talking in his sleep, but he did not feel sick, and perspired freely.

14th.—The stump was looking much better, the condyle having granulated over, except the lower part, about the size of a shilling. The wound was two inches and a half broad. Temperature 99·8°.

23rd.—There had been some sloughing from the lower edge of the wound where it had pressed against the splint.

April 6th.—During the night the man had been very sick and his bowels were relaxed, but he felt better in the morning.

17th.—The piece of black tissue was removed; it appeared to be the articular lamella of bone; it was quite black, and about the size of a shilling. There was slight bleeding on its removal, but the granulations were healthy.

27th.—The wound was healing fast. The man was able to get up and about in a wheel-chair. He progressed favourably until the 16th of May, when the wound increased; it was then treated with ten grafts of skin, none of which took. There was some discharge from the stump at this time.

He left the hospital on June 2nd, well.

Oct. 15th.—He called at the hospital to-day, with a splendid stump. He could bear any amount of pressure upon its end. The patella was quite movable above the condyles. The cicatrix was situated well behind the condyles of the femur.

CASE 50. *Rupture of femoral artery and vein; gangrene of leg; amputation of leg at knee joint; cure.* (Reported by Mr. H. Liddell.)—W. J. M——, a strong, healthy-looking, and temperate cab-driver of twenty-eight years of age, married, and with several healthy children, was admitted into the accident ward on the 5th May, 1874, with great swelling of the right thigh, extending from the middle down to the knee. There was also some swelling and ecchymosis in the popliteal space. No pulsation could be felt in either the anterior or posterior tibial arteries of the same limb, which was quite cold and nearly without sensation.

The same evening, whilst crossing London-bridge, he was knocked down by a hansom cab, the wheel passing over his right leg near the knee. He gained his feet without assistance, but after walking a few yards fainted, and was at once brought to Guy's Hospital.

May 6th.—The foot had become warm, and there was a fair amount of sensation all over the limb. Although it was numbed, the swelling was hard, without pulsation, neither was there any in the vessels at the ankle. There was acute sensation on the internal and external sides of the ankle, and slight ability to move the toes. The measurements of the right leg were more than the left one: over the patella 4 in. more; two inches below the patella 4¼ in.; three inches above the patella, 4¼ in.; four inches above, 3¾ in. Pulse 82.

7th.—The limb had been enveloped in cotton-wool; the foot was quite warm and pink. Temperature 98·8°.

8th.—Temperature 98·8°; pulse 108. He had a good night's rest. His eye was almost closed with ecchymosis from his fall. The lower surface of second, third, and fourth toes was blue; there was a sensation of pins and needles in the foot and leg at lower part, and in front of the ankle.

9th.—Great pain was felt on touching the leg about the middle of the inner side. There was considerable discolouration on the inner side of his knee.

10th.—The foot was more swollen, colder, and blacker, and the knee and thigh were yellow.

14th.—His bowels had not been opened for six days; an enema was given, which acted freely. There was now a greater feeling of numbness in his toes, which were also black and dead at the tips, especially the great one. Some parts of the dorsum and lower third of the leg were of a deep livid colour, others a white, presenting a mottled appearance. Appetite bad. Temperature 101·4°; pulse 106.

18th.—His appetite was better, and his spirits were good. Temperature 99·4°; pulse 98. His toes were black as far as the first joints; circulation on the dorsum increased daily, but the foot was still mottled and excessively sensitive at certain points, especially over the inner ankle.

20th.—His rest at night was bad, and his head ached severely; he perspired profusely, and his tongue was thick and furred; but he passed a better night following, with less headache. He had been ordered ten minims of tincture of aconite, which seemed to have good effect. His leg now felt very heavy, and if he attempted to bend his knee, it produced a sensation of numbness below the knee.

22nd.—There was considerable bleeding from the wound on the outer side of the leg. In the afternoon the man was placed under the influence of chloroform, and the leg was amputated at the knee-joint, the patella being left. The stump was placed on a short back-splint. He had a good night's rest after, without any pain in the stump. Temperature 102·5°; pulse 112.

25th.—There was a great deal of discharge from between the flaps. The man complained of giddiness and an uneasy feeling, as though the leg which had been taken off were still on and paining him; he had also a feeling of sickness, and perspired a little, but passed a capital night following.

26th.—The dressing pained him a good deal, but he had a good night's rest afterwards.

29th.—The man was quite cheerful; he had no pain but a little numbness in the stump, which still discharged.

June 10th.—A considerable amount of pus had collected, which caused the patient great pain.

17th.—The man had repeated shiverings for some days; from this, however, he soon recovered.

20th.—He was allowed to get up for a little. His leg had been put up in new splints, and two days later he was wheeling himself about.

July 4th.—He had felt a good deal of pain in his leg, but went out every afternoon.

11th.—He continued to go out. The stump looked very well, but his appetite was bad. He continued to progress favourably, and left the hospital on the 21st July, 1874.

I must now, Sir, bring this paper to a close, and I trust that I have adduced sufficient evidence to support the propositions I have brought before you; did time permit, I could, from other surgical fields, bring forward more to support the principle to which I have drawn your attention, more par-

ticularly in the treatment of tumours of bone. But you all know how strongly Sir Wm. Fergusson has advocated the removal of tumours of the jaws from within, and how ably Sir James Paget has advocated the removal of bone tumours generally by enucleation; and under these circumstances no word from me would add to the force of their recommendation. I would simply endorse their advice, and adduce their evidence in support of the principle I have described as that of "the least sacrifice of parts." The principle is one that I have long followed, and have acquired great confidence in. I am induced to deviate from it only by very strong evidence. I commend it therefore to your consideration and adoption.

ON THE CHEMICAL STATICS OF THE BRAIN.*

BY J. L. W. THUDICHUM, M.D.

I DESIRE to bring before the Medical Society of London the results of certain original researches on the composition of the brain, which I have carried out during the last three years on behalf of the Medical Department of the Privy Council, under the auspices of my honoured friend, Mr. John Simon. These researches, with all their analytical proofs, will shortly be communicated to Parliament in the happily revived annual Reports of the Medical Officer of the Privy Council and the Local Government Board, and to this Blue-book I must refer all those of my auditors who may desire more detailed information than can be given in the time allotted to papers to be read before the Society. They will find my contribution to that volume, entitled "Researches on the Chemical Constituents of the Brain," filling upwards of 130 closely printed pages, to consist of four parts. Of these the first treats of the method pursued for the isolation of immediate principles; the second part is a description of certain chief principles which have been isolated, and concludes with a summary; the third part is an alphabetical list of chemical educts and products stated to have been found in, or produced from, the brain of man and animals, and contains notes concerning probable identities and synonyms; the fourth part is an historical account of previous researches, arranged in chronological order. On the present occasion I shall confine myself to the indication of certain chief results contained in the second part of my report. These results I have termed a contribution towards a *system of chemical statics of the brain*, and I have given this limiting definition with the distinct intention of preventing disappointment. They are obtained upon brain-matter as a whole, a separation of white from grey matter not having been even attempted at this stage of the proceedings; the inquiry isolates and scrutinises the several chemical constituents of nerve-matter, and endeavours by the study and consideration of the peculiarities of each, and their combinations, to obtain sufficient insight into normal and abnormal chemical functions to enable us in time to guide, or to correct them. In thus indicating both the objects and the means of the inquiry, I was desirous of showing that I considered both from a practical standpoint, but that at the same time I was not forgetful of the succession of steps which lead from statics to rational therapeutics.

Nerve-marrow, apparently so simple, is a compound and mixture of a large number of heterogeneous principles, arranged in such a manner as to vanish completely from appearance as chemical individuals; the compounds so interpenetrate each other that the resulting material is apparently homogeneous, during life completely so, when seen with high powers of the microscope, and although in death the homogeneity partly vanishes, yet even the appearance of the cylinder axis cannot be utilised chemically at present, and the isolation and recognition of any ingredients is entirely dependent upon most circumstantial chemical proceedings.

During these proceedings the first striking fact which meets the inquirer is, that nerve-matter contains abundance of water. This, in conjunction with the peculiar manner in which the water is contained, engenders a mobility of ultimate particles within certain limits of movement. It also gives penetrability by liquid diffusion, while excluding porosity and its capillary effects, by which means a ready nutrition by diffusion in one direction, and ready cleansing from the effete crystallisable products of life in another, are ensured. Consequently the brain, as a whole, is essentially made up of colloid matter, and may be compared to a colloid septum, on the one side of which is arterial blood and cerebro-spinal fluid of the ventricles, on the other side, however, is cerebro-spinal fluid of the arachnoidal space and venous blood. It follows from this that the large amount of water present in the brain is not there, so to say, mechanically only, like water in a sponge, and capable of being pressed out mechanically, but is chemically combined as colloid hydration water—or, better, *water of colloidation*.

Now, whereas all soft organs of the body contain about three-quarters of their weight of colloidation water fixed within the organised limits of cells and fibres of all kinds, these latter are thus apparently not very different in respect of their mechanical condition from brain-matter. Indeed, the difference is less in the manner of the condition than in the agents by means of which the condition is brought about. It is in effect mainly by the number and nature of these agents that brain-matter is distinguished from other colloid tissues. It contains a considerable amount of an albuminous base, which may be present in either or all of several forms—e.g., distributed in the form of sheaths to fibres of nerve-marrow, or laid into hollow spaces between the fibres, acting as a cement, or mixed or combined chemically with the rest of the matters constituting nerve-marrow, or may form the cylinder axis. These problems of histo-chemistry can only be solved after the larger features of brain-chemistry, such as I wish to bring before you, are fully understood. From what we know at present, it appears that albumen, however present in brain, is not present in the liquid unattached form, as in serum. Gobley has lately stated, that of the eight per cent. of albuminous matter found in the brain, one part—that is, one per cent.—of the brain-weight was present in the soluble form, the other seven parts in the insoluble. I shall receive with great interest the analytical data of this distinguished inquirer, which have not yet been given. In any case the inquiry into the condition of albumen in the brain is one of extreme difficulty, for it appears that the bearing of soluble albumen, when placed in presence of some of the peculiar brain-matters, changes from that which it ordinarily observes, no doubt by an influence of these brain-matters amounting almost to combination. The bearing of albumen in the brain being thus seen to be governed by the matters peculiar to the brain, I have in the first instance not directed my researches upon the condition and nature of the albumen in the brain, but upon the peculiar matters which seem not only to govern the albumen, but by their manifold chemical affinities assist prominently in producing its singular mechanical arrangements, chemical function, and sensory and volitional action and reaction.

It is not asserted that these matters, or any of them, occur exclusively in brain-matter, but, being present in the nerves, they consequently can be extracted from all sensitive or contractile tissues. They, or some of them, also occur in aggregation of loose cells, such as the blood-corpuscles and pus-corpuscles; others are present in serum, and others, again, in secretions such as bile; but the quantity in which these bodies are met with in parts and matters other than those of the nervous system is far less than that in which they occur in the nervous system. We shall better appreciate the part which these peculiar principles take in brain chemistry by making them take their place in a classification of the whole of the immediate principles composing the brain, which forms them in groups, beginning with the most complicated and ending with the simplest ingredients.

Group of principles containing five elements: C, H, N, S, O. This may be termed the *group of the sulphurised* or *albuminous principles*.

Group of principles containing five elements: C, H, N, P, O. This may be termed the *group of phosphorised principles*. It includes—

* Read before the Medical Society of London, Feb. 8th, 1875.

Kephalin, with varieties and compounds.
Myelin, with varieties and compounds.
Lecithin, with varieties and compounds.

There are moreover found some solid and fluid neutral lipoid matters, not being ordinary fats; it is at present uncertain whether they belong to this group, or are, as I believe them to be, products.

Group of principles containing four elements: C, H, N, O. This may be termed the *group of nitrogenised principles.* It includes—

Cerebrin in its several varieties.
Kerasin in its several varieties.
Phrenosin in its several varieties.
Alkaloids hitherto unknown.
Extractive acids, and secretory acids and their salts, such as uric acid and congeners.
Neutral principles, such as urea and amido-acids.

Group of principles containing three elements: C, H, O. This may be termed the *group of oxygenated principles.* It includes—

Cholesterin with any varieties } alcohols.
Hydrocarbons, such as inosite }
Organic acids, such as lactic, formic, &c.
Fats and fatty acids, which, if not regularly found in health, are certainly present in disease.

Group of inorganic principles: including both acids and bases, and salts, either free or in combination with many of the foregoing immediate principles. This includes—

Sulphuric acid (relatively little).
Hydrochloric acid, and as Cl in chlorides.
Phosphoric acid.
Carbonic acid.
Potash, Soda, Lime, Magnesia, Copper, Iron, Manganese } In combination with immediate principles, forming their base, or in combination with phosphoric acid, and attached to immediate principles as phosphates, or in combination with mineral acids, as free mineral salts in the juices and extracts.
Alumina, silica, fluorine (doubtful).

The *phosphorised principles* have certain properties in common, which point to some similarity in chemical constitution; by other peculiarities, again, they are sharply distinguished from each other. They are all soluble in water in a certain manner and measure. When they are in the dry state, and are placed in pure water, they sink to the bottom and are at once wetted by water. Thus their specific gravity is at once shown to be greater than that of water, and by this and the faculty of being wetted they are sharply distinguished from the fats and fatty acids, but assimilated to the soaps, as the older authors correctly stated. When they have remained in the water for a short time they begin to swell, to become transparent at the thin margins of the particles, and covered with a loose layer all over their surface. By agitation this is diffused and renewed, and with time the particles of solid matter disappear entirely, and a turbid solution of very peculiar appearance is formed. Such a solution cannot be clarified, and passes through filtering-paper; yet it contains particles of the smallest kind, which exhibit their presence by iridescence in the case of myeline and lecithine, and by reflecting polarised light in all cases. These solutions, therefore, resemble somewhat the cold solution of soaps and the emulsions produced by solid fatty acids with neutral phosphates. But they are not emulsions properly so called, as these require the presence of two agents besides water, whereas these brain-substances give this peculiar solution with mere water; they are not decomposed, as the soaps are, into acid and alkaline salt, as they are not salts, but form these solutions in the free and uncombined and also in the combined state. We may define this peculiar condition as a *state of imperfect or incomplete solution,* a state intermediate between the solid and fluid state of matter. Those, however, who do not coincide in that description may term the solution an *emulsion,* if that conveys any definite idea, and not only an external similarity of appearance. All the phosphorised matters are soluble in ether, but in very different proportions. Kephaline dissolves in this reagent in almost any quantity; lecithine only less than kephaline; but myeline is very little soluble in cold ether, more in hot ether, and is instantaneously deposited from the ether as it cools. All the phosphorised matters are soluble in alcohol; lecithine in all proportions in hot absolute alcohol, less in cold; kephaline is almost insoluble in cold alcohol, more soluble in hot, almost entirely deposited on cooling; myeline, however, is little soluble in cold alcohol, largely soluble in hot, and deposited on cooling in a crystallised state, and in such quantities that the fluid becomes filled with crystals. It will thus be seen that while water offers no means for the separation of these substances from each other, ether and alcohol offer great advantages, which have indeed been used for their separation. Yet ultimate purity is only attained by combining these substances with different reagents, particularly platinic chloride, and cadmic chloride, and lead oxide.

(To be continued.)

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

ANEURISM OF RIGHT COMMON ILIAC ARTERY.

(Under the care of Mr. SIMON.)

FOR the notes of the following interesting case, which is at present in this hospital, we are indebted to Mr. S. Osborn, surgical registrar.

Thomas K——, aged thirty-eight, a driver in the Royal Engineers, was admitted into Albert ward on Feb. 16th, suffering from aneurism within the abdomen.

"On the 16th of July he was admitted into the Military Hospital at Aldershot, complaining of pain in and enlargement of the left leg and thigh, which came on after exposure to cold whilst bathing. He stated that about a month before this he had suffered from pain in the loins, which he considered to be rheumatic. After external applications it partially disappeared, and he continued his duties up to the date of his admission. The leg symptoms were at this time supposed to be due to obstruction of the venous circulation, but the cause of the obstruction was not ascertained for some weeks afterwards. Aneurism of the left (?) common iliac artery was then diagnosed. It appeared from the man's own statement that in 1872 his horse fell with him and crushed his left leg. He did not at that time attend the hospital. Thirteen or fourteen years ago he had a venereal sore accompanied by a bubo, but not followed by any secondary symptoms. The treatment has been almost altogether local. The leg was kept raised as much as possible, and covered with cotton wool and flannel bandages." (For these notes of his first condition we are indebted to Surgeon-Major Ramsay.)

The patient has never been resident in foreign parts. His left leg was, on admission, immensely swollen, so as to be nearly twice the size of the opposite limb. The swelling commenced first in the foot on July 16th, and gradually extended upwards, and on admission had reached to the flexure of the groin, resembling somewhat elephantiasis Arabum, but without that characteristic wartiness of the skin. There was much tension of skin, with pitting on pressure, the soft parts having become thickened from passive exudation into the cellular tissue, producing what has sometimes been described as "solid œdema." The dilatation of the venous capillaries gave an arborescent appearance to the skin, and in some places there were small punctiform extravasations. The venous congestion extended slightly above Poupart's ligament, corresponding to the epigastric and circumflex iliac branches, and posteriorly it was confined to the left side of the buttock reaching to the loin of that side.

Two patches of superficial ulceration were present, one on the back of the calf and the other on the shin, from which serum transuded. These places caused him some uneasiness, but otherwise he was without pain. The bilateral pain in the loins he previously complained of had disap-

peared. Circumference of left thigh, 31 inches; right thigh, 19 inches; across left patella, 18 inches; across right patella, 15 inches; around left ankle, 12 inches; around right ankle, 8¼ inches. The superficial veins of the scrotum were tortuous and knotted, their varicosity being first noticed three or four months ago; no enlargement of spermatic veins. He had suffered for three months from intero-external piles, which occasionally bled. The temperature of the left leg by the surface thermometer was 98°, that of the right leg 92°. The pulsation of the anterior and posterior tibial vessels could not be compared with that of the opposite side on account of the œdema. The radial pulse was 108. He suffered from heart disease, there being a regurgitant aortic murmur.

On manipulation a distensile and pulsating tumour with an aneurismal bruit, synchronous with the pulse, could be felt on the right side and somewhat below the level of the umbilicus, probably due to an aneurism of the right common iliac artery, or of the aorta at its bifurcation. Compression applied to the abdominal aorta lessened but did not entirely arrest pulsation in the tumour, the tension and thickening of the abdominal wall rendering it difficult of application.

Since his admission the toes have become blue, but little if any diminution in size has occurred since his rest in bed, with the limb enveloped in cotton wool. Compression by abdominal tourniquet is about to be tried. The progress of this case we purpose giving at a later date.

MIDDLESEX HOSPITAL.

CASES OF COXITIS TREATED BY EXCISION.

(Under the care of Mr. HULKE.)

THE following is a continuation of the series of cases of coxitis from page 303:—

CASE 6.—A. S——, aged six, admitted into Percy ward on 22nd April, 1868, with pain in the hip and knee, a deep swelling behind the trochanter major, a flattened buttock, and a wasted limb, was, on the 11th Dec. following, courteously transferred by Mr. Shaw to Mr. Hulke. In November an abscess had broken near the trochanter, after which the child had rapidly lost flesh and strength, his appetite had failed, he had had increased pain in the hip, breaking his sleep, and the discharge from the abscess had latterly been very profuse.

Dec. 16th.—The head and great trochanter of the thigh-bone were removed through the usual curved incision. The articular cartilages had almost wholly disappeared from the head, and from the acetabulum. The hinder lip of the latter appeared carious, and was gouged away. The limb was fixed in the usual way with a De Morgan's splint.

From this time his state improved. He made a good recovery. When dismissed the left limb was one inch shorter than the right.

CASE 7.—J. W——, aged ten, admitted into Percy ward on Dec. 19th, 1865, with advanced coxitis and an abscess in the upper part of the thigh, was, in the following January, transferred by Mr. Shaw to Mr. Hulke for excision. An abscess had meanwhile broken between the thigh and the scrotum.

Jan. 13th.—He lay on the right side, his left thigh flexed nearly at 90°, and adducted. The least movement gave him great pain in the hip. The buttock was distended by a large abscess. The muscles of the limb were soft and wasted. The lower part of the spinal column was arched forwards strongly. He was very thin, and at night he sweated profusely. His liver was not enlarged, his urine was free from albumen, and no lung disease was discoverable. The head, neck, and greater trochanter of the thigh-bone were, on this day, removed through a curved incision. Two loose sequestra were taken from the acetabulum. The incision was closed with sutures except at one point where a strip of lint was placed between its lips for drainage, and the limb was fixed with a De Morgan's splint.

By the end of March the sinuses and the drainage opening in the incision (the rest of the wound had united immediately) seemed to be all but healed, and his health had much improved. The left limb was found by careful and repeated measurement to be only three-quarters of an inch shorter than the right. In May he had a febrile attack with phagedænic ulceration of the cicatrices, and in the middle of June a similar but less severe attack, which retarded his recovery. In August he was allowed to get up, wearing a leather splint; and in October he was dismissed with all the sinuses after the abscesses and the incision soundly healed.

CASE 8.—B. M——, aged twenty-two, a Lincolnshire labourer, was readmitted into Forbes ward on May 16th, 1870, with morbus coxæ of about five years' duration. He had been an in-patient under Mr. Hulke in the course of the preceding year, and had returned home greatly improved after a stay of thirteen weeks. Mr. H. J. Shaw, of Louth, stated that the patient did not resume work for about six months in consequence of feeling his leg weak and painful. He then obtained a light employment, which he continued for seventeen weeks, when an abscess laid him up. About two months later he obtained readmission into the hospital.

The left lower extremity was wasted and an inch and a half shorter than the other, and the buttock was flattened. The upper border of the greater trochanter was one inch closer to the anterior superior iliac spine (both limbs being similarly placed). The mobility of the joint was very limited, and movement was very painful and attended with slight grating. There were four sinuses in the front of the thigh, about three fingers' breadth below the groin, passing deeply towards the joint, and a fifth sinus six inches below the greater trochanter. The sinuses were injected and dressed with a solution of carbolic acid, and a De Morgan's splint was applied to the limb.

On the following day he said he was much easier. At the end of the month, a fortnight later, the hip was more painful and tender, and the sinuses discharged more. A succession of feverish attacks, marked by a higher temperature (maximum 104·3° F.), shiverings, loss of appetite, headache, and tremulousness, followed. At a consultation on June 23rd, it was suggested that these symptoms were occasioned by osteitis of the shaft of the thigh-bone, for which excision did not offer any relief, and delay was counselled. Through the summer and early autumn his state fluctuated, with, however, a constant loss of ground.

Oct. 21st.—A small sequestrum escaped from one of the sinuses.

Nov. 2nd.—The discharges being more copious, and his sleep being now much broken by the limb starting at night, it was decided to thoroughly explore the acetabulum with the object of extracting from it any sequestra, the escape of which was prevented by the partially anchylosed head of the thigh-bone. Through the customary curved incision, the upper end of the thigh-bone was laid bare (the globular head had disappeared); it rested in a hollow formed by an upward and backward extension of the upper and posterior lip of the acetabulum. The irregularity of these coapted bony surfaces, and their intimate junction by a tough fibrous tissue, made it impracticable to first dislocate the end of the bone in the usual way before sawing it off. The neck was therefore first cut through with a stich-säge, after which the upper end was taken away with gouge and cutting forceps. When this had been done some small loose pieces of dead bone were reached in the front and lower part of the acetabulum, buried in a gelatinoid tissue, and were removed. The wound was washed with a solution of chloride of zinc, and the limb fixed with a De Morgan's splint and sandbags.

The immediate effect of the operation was considerable relief. He progressed so favourably that on Dec. 12th he said he "was nearly well." All the old sinuses, excepting the one below the trochanter major, and the incision, except at two small spots, had closed. In January he caught a cold which he did not shake off, and he began to cough. Later he had more pain in the hip, and some of the sinuses reopened. With the return of warm weather he rallied, but the hip continued painful, and the sinuses would not heal. In June his desire to return home was acceded to. Amputation was proposed, but he would not entertain the idea. He died in the following December, an abscess having shortly before burst into the urinary bladder.

LAST week the births registered in Dublin amounted to 166, while the deaths numbered 202, thus exceeding the former by 36.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE annual meeting of the Society was held on Monday, March 1st, at 8 P.M., the President, Charles J. B. Williams, M.D., F.R.S., being in the chair.

Dr. Samuel Gee and Mr. Fairlie Clarke were nominated scrutineers of the ballot for the new officers and Council.

The abstract of the income and expenditure of the year 1874 was read, followed by the Report of the President and Council, which gave an account of the present state of the Society as to the number of its fellows and the condition of its finances. The total number of fellows is 654, the same as last year. The deaths among them have not been so numerous as in the previous year; they include two honorary fellows—Jean Cruveilhier and Sir Charles Lyell,—eight resident, and five non-resident fellows. The number of new elections to the fellowship has been twenty-one. The ordinary income (£1363 15*s.* 7*d.*) has been slightly, and the expenditure (£1174 4*s.* 2*d.*) considerably, below that of 1873, the latter decrease being chiefly in the cost of the library and Transactions. The report referred to the funded property of the Society and to the investment for the Marshall Hall Fund, and also congratulated the Society on the success of the second held *conversazione* last June. The library had been increased this year by purchases and donations to the extent of nearly 500 works. The adoption of the report was moved by Mr. George Pollock, seconded by Mr. Oliver Chalk, and carried unanimously.

The PRESIDENT then addressed the meeting, and, after congratulating the Society on its even prosperity, with a deduction on account of the scanty attendance of the fellows at its meetings, and, on the other hand, a creditable reference to the great success of the biennial *conversazione*, he proceeded to give brief biographical notices of fifteen fellows deceased during the past year— viz., Professor Cruveilhier (of Paris), Sir Charles Lyell, Surgeon-Major John Wyatt, C.B., Richard William Tamplin, F.R.C.S., John Burford Carlill, M.D., Thomas Ballard, M.D., Edward W. Duffin, M.D., F.R.C.S., Richard T. Tracy, M.D., James Dawson, F.R.C.S., James H. Pickford, M.D., George Ford Copeland, M.R.C.S., Archibald Douglas, M.D., Alex. Halley, M.D., Francis E. Anstie, M.D., and Sir Ranald Martin, the last two being taken as subjects of concluding remarks. The energy and abilities of Dr. Anstie, he said, did not display themselves until he reached man's estate and found incentives to do battle in the world. The innovations in the practice of medicine introduced by Dr. Todd aroused his interest, and soon enlisted his powers, and the favourite subjects of the same teacher directed his attention especially to the nervous system and its maladies. His connexion with the editorial staff of THE LANCET developed his taste for measures of reform, which the benevolence of his disposition directed towards the relief of the helpless and the mitigation of distress. The precocious exercise of a spirit of criticism gave a somewhat censorious bias to his mind, and a tendency to distrust and discourage the views and practices of the past. But he was no mere dogmatist, but also a diligent worker, and, although his labours were unremunerative to himself, they were beneficial to others, and had laid the foundation of his future success had he lived to build on it. An eloquent eulogium extracted from THE LANCET closed the notice. Sir Ranald Martin throughout his long and busy life, both in India and after his return to England, was quite as much occupied in honorary and gratuitous employment as in making provision for his large family; and although his numerous and eminent services were acknowledged by honorary distinctions, there was little substantial return for the devotion of nearly sixty years of his life to unceasing and anxious toil, with great and frequent danger and injury to his health. Merchants, planters, and civil officials of high rank return from India with large fortunes after much less labour and shorter terms; but the most distinguished military medical officer, when obliged by ill-health to return after twenty-three years of active service, finds himself obliged to resume practice for thirty-four years more, without any enjoyment of that *otium cum dignitate* to which he was so fully entitled. Yet his services, far beyond those of routine, included a work of sanitary reform, initiated in India, and carried on by himself and others in England, the effect of which has been to preserve many thousands of lives, and to save millions of money. The honour of having been an instrument in this noble work has been his only earthly reward. Sir R. Martin was also loyal to his profession in successfully exerting his influence to obtain for the medical officers of the army and navy their share in the distinctions of the Bath, which had hitherto been withheld from them. Thus do the lives of Anstie and Martin reflect honour on their profession by their noble and unselfish exertions in the cause of humanity. Nor are their histories singular. Nay, do they not represent the general character of the lives of medical men who find themselves called on—and refuse not—to toil night and day, often sacrificing their health, sometimes their lives, for the relief of suffering, without, or with a very inadequate, remuneration? Doubtless it is a noble and a God-like work, and assuredly they have their reward; but this comes not from the gratitude of the public, nor from the appreciation of their services by the upper ranks of society. Because, unfortunately, the numbers and needs of medical men are commonly so great that some are ready to proffer their services at any or at no price, the public expects from them gratuitous work, which would not be thought of with any other profession or trade. Against such injustice we cannot too strongly or persistently protest. The recent proposition from the Royal Society for the Prevention of Cruelty to Animals also implies something like an indignity to our profession. They ask that their secretary, with two others, shall be present whenever we have to perform experiments on living animals. You know the explicit reply of the Council: "That if the Society should undertake any scientific investigations rendering such processes necessary, *they would certainly decline the presence or interference of any unqualified witnesses.*" Those only profoundly acquainted with physiology can be competent judges of the necessity of making experiments on living animals, and of the most merciful modes of conducting them; and such experts, being also practitioners of the healing art—a great aim and constant object of which is to relieve pain and mitigate suffering—may be implicitly trusted without the espionage and surveillance of impulsive and unqualified observers. In justification of vivisection for strictly humane and scientific ends, it has been fairly argued that if whole hecatombs of animals are habitually and ruthlessly sacrificed, not only for food but for luxury and for sport, and often with little or no consideration for their individual tortures, there is a much more rational and cogent plea for the use of a few for instructive investigations which have an intimate bearing on the relief of suffering humanity. But there is a warrant on higher grounds. Long before the Divine permission to use animals for food (which was after the Flood, Genesis ix. 13), to man was given "dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth" (Genesis i. 26, 28). What is this "dominion" but the subserviency of animals to man's use for all proper purposes, and for all time? And as the preceding mandate to subdue the earth ("Replenish the earth and *subdue it*") has had its continual fulfilment through the development of physical art and science in all ages, down to the last great achievements in making servants of the great earthly powers, heat and electricity, in the steam-engine and electric telegraph—so does the primæval command to have dominion over animals coupled with the Christian injunction, "Heal the sick," show that we are not merely permitted, but absolutely enjoined to make such use of animals as science points out for the advancement of the healing art. And to whom can this "dominion" be so safely and beneficially confided as to the members of that profession of whom our late fellows Ranald Martin and Francis Anstie were types?—the one having devoted the greater part of a long life to the public good, the other cut off in his prime, in full career of usefulness, a

sacrifice to his beneficent labours. In conclusion, the President expressed his obligation to the council and secretaries for their aid, and to the fellows for their kindly support, and heartily thanked them for the honour conferred on him by making him their president—an honour which he prized above all others in his professional career.

Votes of thanks were moved and carried by acclamation to the President by Mr. Fairlie Clarke seconded by Dr. Althaus, and to the retiring Secretary, Dr. Symes Thompson and the retiring Vice-Presidents and other members of Council, by Mr. John Birkett and Dr. Wm. M. Ord. Dr. C. J. B. Williams and Dr. Symes Thompson returned thanks, and the result of the ballot for officers and council for the ensuing year was declared as follows:—President: Sir James Paget. Vice-Presidents: Dr. Edward Ballard, Sir William Jenner, Mr. Charles Brooke, and Mr. John Marshall. Treasurers: Dr. Wegg and Mr. John Birkett. Secretaries: Dr. John Harley and Mr. Cooper Forster. Librarians: Dr. Sibson and Mr. Timothy Holmes. Other members of Council: Dr. Andrew Clark, Dr. W. H. Dickinson, Dr. Wilson Fox, Dr. W. O. Priestley, Dr. Hermann Weber, Mr. G. Callender, Mr. Gaskoin, Mr. Gay, Mr. Thomas Smith, and Mr. Streatfeild.

PATHOLOGICAL SOCIETY OF LONDON.

THE ordinary meeting of this Society on March 2nd, Mr. Pollock, President, in the chair, was very fully attended, and several interesting cases and specimens were shown. The most important, however, and the one which excited the greatest interest and discussion, was that by Mr. Jonathan Hutchinson on the kind of teeth usually associated with zonular cataract.

Before the other business of the meeting, the President showed photographs of a case of a sort of Molluscum Fibrosum, which is under his care at St. George's Hospital, and on which he proposed to operate on Thursday, the 4th instant. He remarked that the case closely resembled one which he had exhibited to the Medical and Chirurgical Society some time ago. The patient is a young woman, twenty-five or twenty-six years of age, in whom the growth began at the age of six, and has rapidly increased. It consists chiefly in an enormous hypertrophy of the skin of the thigh, which hangs in large pendulous folds. The weight is so great that the exertion of going upstairs causes much exhaustion. Mr. Pollock remarked that these growths are much more vascular than was usually supposed, and the vessels are long and tortuous; and in order to prevent hæmorrhage, which might be fatal, he had been obliged in the former case to resort to the plan of ligaturing the base of the part removed by passing numerous ligatures through from side to side, and tying them across before making the incision. A slight skin incision was made (as in ligaturing nævi) to avoid pain. He proposed to bring the removed parts before the Society, and mentioned the case in order that anyone who desired might see her before the operation.

Mr. JONATHAN HUTCHINSON exhibited a number of drawings, casts, &c., illustrative of the kind of Teeth usually met with in Zonular Cataract. He remarked that although it has been well known that children suffering from cataract have usually also badly developed teeth, the malformation has been variously ascribed to congenital syphilis, rickets, or general defective development. He believed that imperfect teeth are, as a rule, met with only in connexion with one form of the cataracts of childhood—viz., "lamellar" or "zonular" cataract, in which only a thin layer of lens fibres, at a greater or less distance from the nucleus, and completely surrounding it, is involved; and the defect is compatible with very fair vision, and is often not detected till the child begins to learn to read, or till adult life. It is almost invariably symmetrical, and in many cases quite stationary. It is unassociated with any special diathesis, and rarely met with in more than one member of a family. These facts suggest that it is due to some temporary disturbance in the nutrition of the lens, and this is supported by the fact that it has probably never been recognised at the time of birth, generally not till the child is a few years old. The defect met with in the teeth in these cases is wholly different from that met with in congenital syphilis, and consists chiefly in defective development of the enamel rather than in alteration of the form of the teeth. But it is often found in association with the characteristic malformation of hereditary syphilis, and this may have given rise to the confusion. The incisors, canines, and first molars are the teeth which suffer most, and, as a rule, with very few exceptions, the bicuspids escape entirely. The contrast between the clean, white, smooth enamel of the latter, and the jagged, discoloured, spinous surface of the first molar is often very striking. The first molars form the test teeth for this condition, as the upper central incisors are for the syphilitic. It occurs equally in both jaws in these teeth, and they are sometimes alone affected. The *permanent* teeth alone exhibit changes which can be relied upon for diagnosis. The condition of the teeth, which was well shown by the drawings, is that the incisors and canines are pitted, dirty, and broken, often presenting very sharp edges, sometimes almost spinous. In some cases a horizontal line crosses the crown of the incisors and canines at one level, the part of the tooth below being narrow from before backwards, sharp, and broken. Non-development of enamel and erosion of the exposed dentine appear to be the essential features. In the first molar it is usually the surface alone which is affected, the sides of the crown being often covered with good, smooth enamel, whilst its surface is denuded, brown, and rugged. Mr. Hutchinson next proceeded to state that the coincidence of these teeth with lamellar cataract was not invariable. Cases on record showed that this form of cataract might exist without these teeth; whilst the occurrence of these teeth without cataract was common. Hence he concluded that there was no direct correlation between the nutrition of the lens and that of the permanent teeth to explain the coincidence. He next referred to Arlt's observation that there was usually a history of convulsions in early infancy in cases of lamellar cataract, and stated his belief that herein might be found the explanation of the dental condition. It appeared from inquiry that these defects of the teeth usually result from attacks of inflammation of the gums in early infancy; and that mercury holds the chief place in the causation of such stomatitis. Moreover there is reason to believe that mercury is given in large and repeated doses in many cases of infantile convulsions, and probably enters largely into the composition of some of the most popular teething powders. He suspected that the malformed teeth were evidence that the patient had taken mercury in infancy, when the enamel was undergoing calcification; and this is supported by the order in which the teeth suffer, which is that of their priority of development. Inquiries into cases of lamellar cataract lead to the belief that the connexion between this form of cataract and fits is almost universal; whilst that between the cataract and the teeth is general, but with marked exceptions, but where they are found together there is usually a history of treatment of the fits by mercury. Mr. Hutchinson next referred to the fact that the idea of the connexion of lamellar cataract, infantile convulsions, and malformed teeth was not new, for Arlt had published observations on the connexion of fits and cataract more than ten years ago, and Davidson ten years ago discussed the condition of the teeth. The latter thought, however, that the dental defects were characteristically those of rickets. Professor Horner had furnished him with statistics of seventy-eight cases observed by himself; in these there was a history of convulsions in 76 per cent., deformity of the teeth in 85 per cent., asymmetry of the head in 35 per cent., imbecility in 2 per cent., and rachitic malformations of the extremities in 4 per cent. The 76 per cent. indicates only that convulsions were *known* to have occurred in this number, and excludes the doubtful cases. Dr. Horner believes that rickets is the cause of the malformation. Mr. Hutchinson next stated that he did not think that the rule that the convulsions stand in the relation of cause to the cataract, and the mercury given for the convulsions as cause to the dental malformation, was invariable, as there were certain exceptions; in some cases the use of drugs being

denied where malformation exists, and in others several members of the same family being affected with zonular cataract with no history of convulsions and without malformation of the teeth. The latter class of cases are probably of different nature, and, as regards the former, other causes of stomatitis may determine the malformation. As regards the connexion with rickets, Mr. Hutchinson considered it entirely wanting in proof. In conclusion, Mr. Hutchinson summed up his results as follows:—1. That it is exceptional to meet with lamellar cataract excepting in association with an imperfect development of the enamel of the teeth, but that definite exceptions, in which the teeth are quite perfect, do occur. 2. That the kind of defect observed consists in the absence of the enamel, and is shown on the incisors, canines, and first molars of the *permanent* set, to the almost invariable exemption of the premolars. That for purposes of diagnosis the first molars are by far the most important, and may rank as the test teeth, since they not unfrequently show the defect when the others escape. 3. That it is highly probable that the defects in the development of the teeth are usually due to the influence of mercury exhibited in infancy, although it is quite possible that other influences, attended perhaps by inflammation of the gums, may occasionally produce similar results. 4. That teeth of the kind alluded to are met with very often in persons who are not the subjects of zonular cataract. 5. That it is very rare to find lamellar cataracts without history of convulsions in infancy. 6. That there is probably no direct connexion between the occurrence of convulsions in infancy and the development of lamellar cataract. 7. That whilst there is every reason to believe that the defective teeth which are met with in connexion with zonular cataract are the results of mercury, the evidence seems opposed to the belief that the lenticular opacity is also due to the influence of the drug. The great frequency of mercurial teeth without lamellar cataracts, and the not very infrequent occurrence of lamellar cataracts without mercurial teeth, are opposed to this view. 8. That the very frequent coincident occurrence of lamellar cataract with defective teeth is to be explained by reference to the frequency with which mercury is given for the treatment of convulsions in infancy. 9. That there is no reason whatever for supposing that lamellar cataracts have any connexion with hereditary syphilis. 10. That whilst it is certainly true that lamellar cataracts are commonly met with in young persons who show general defects of development—short stature, ill-shaped heads, defective intellect, dwarfed lower jaws, or other physiognomical peculiarities,—yet there is seldom any proof of the existence of rickets; whilst it is quite possible that the particulars mentioned may be due to the disturbance of the nervous system in infancy in connexion with the convulsions. 11. It is very important to distinguish between mercurial teeth and syphilitic teeth; that the peculiarities presented by each usually render this easy; whilst, however, the two are, as might have been expected, not uncommonly met with together.

The paper was listened to with much interest, and received with considerable applause.

The discussion was opened by Dr. CRISP. He remarked that he could not agree with Mr. Hutchinson that mercury had much to do with these teeth, for although he often saw mercury given in large quantities it did not produce them. Moreover, there must be some cause for the convulsions, and he thought the cerebral condition which gave rise to them was a much more likely cause of the condition of the teeth than the use of mercury. He had seen many cases of *tremblement mercurielle* in persons who worked in mercury, and in one case he had seen a husband and wife and eight children, who were all living and the children brought up in a mercurial atmosphere, yet in none of them were there the kind of teeth described by Mr. Hutchinson. He mentioned that a child of his own who had had convulsions when eighteen months old, which were supposed to be due to a fall from a perambulator, had now these teeth, and although mercury was given, he did not believe the amount would have been sufficient to produce them.—Mr. HULKE thought that much praise was due to Mr. Hutchinson for the care and caution and philosophical manner in which he had worked out and brought the subject before the Society. But there were two considerations which led him to think that there were other agents at work in the production of lamellar cataract besides convulsions. One was that the disease occurred in lower animals; in fact, the first case, he believed, in which the disease was well worked out was in a cat, which he examined with Mr. Bowman in 1849. Since that time he had seen several cases in the lower animals. The other fact was that, although lamellar cataract is usually seen with only one zone of opacity, we may find two or three, with clear lens substance between them, the most central zone being very small, and, in some cases, certainly smaller than the lens at the time of birth. This fact would indicate that it must occur during intra-uterine life. He was under the impression that the bulk of the cases were congenital, and not infantile.—Mr. POLLOCK expressed his indebtedness to Mr. Hutchinson for bringing forward the subject. He inquired whether the acute diseases of infancy might not influence the development of the teeth, just as a severe illness in adult life may mark the nails. The latter he had observed in himself, and in his own children he had observed that acute illnesses, in which no mercury had been given, had marked the teeth.—Dr. HARE observed that with regard to the form of teeth there was one fact worth considering. The kind of teeth were those usually associated with rickets, a disease of which he had seen a good deal. Now, in rickets mercury was usually avoided, and whilst in the case of many children to whom he had given mercury largely for other diseases in infancy he had seen them grow up without these teeth, he had constantly seen them in cases of rickets when no mercury had been given.—Mr. HUTCHINSON asked whether Dr. Hare was speaking of rickets in infancy, and Dr. Hare replied that it was so.—Mr. THORNTON asked whether there was any connexion between these mercurial teeth and those of congenital syphilis.—Mr. THOMAS SMITH remarked that it was an important fact that, whilst in cases of children with congenital syphilis a great deal of mercury was given, they do not get the mercurial teeth, but those characteristic of syphilis.—Mr. WARRINGTON HAWARD had had the opportunity of examining the teeth of a large number of factory children in Lancashire, most of them under thirteen years of age. In many of them the peculiar teeth described were noted. He was unable to ascertain any cause—in fact, the children thus affected were for the most part quite healthy, and the proportion of rickety and syphilitic children was much less than in London. Hence it was probable that they had not taken mercury. We must remember the frequent coincidence of convulsions and rickets, and the constant use by parents of "teething powders" in convulsions. He had seen a case in which salivation was produced by these powders.—Mr. HUTCHINSON, in replying, observed that Dr. Crisp had raised an important question by suggesting the possibility of the direct action of a cerebral lesion in producing the convulsions and the condition of the teeth; but so far as the case related by Dr. Crisp went, it afforded a proof of the views advanced by him (Mr. Hutchinson), as the child had taken mercury, and it was impossible to say that it had not produced the condition of the teeth. He regretted that he had not expressed his views clearly enough for Mr. Hulke to apprehend them, as Mr. Hulke's observations were not directed against the real statements of his paper. He had no idea that the mercury was the cause of the cataract or of the fits. As regarded the double zonular cataract, he believed it was extremely rare, and he had not met with a case, but some of the cases in which it was recorded were very instructive. Thus in one case given by Davidsen, in the paper before mentioned, the child had been subject to fits for eighteen months, so that the two zones might have occurred at different periods from the same cause, and did not at all form an exception to the possibility of fits producing it. He had not met with the very small-zoned cataract mentioned by Mr. Hulke, but no doubt its occurrence would favour the view of an intra-uterine origin. He believed that he was right in regarding the disease as infantile and not congenital, as supposed by Arlt. The cataract is inconspicuous, and is not observed in the first few weeks of its existence; but if a cataract is seen in the first few weeks of infantile life his experience was that it was of some other form than the lamellar. As regarded the stomatitis, mercury was no doubt not the only cause; but with regard to Dr. Hare's observation, which agreed with Horner's, that these teeth are found associated with rickets, Mr. Hutchinson pointed out that Dr. Hare was speaking of the *temporary* teeth, whilst he alluded only to the *permanent* set. Vogel states, moreover, that the first set of teeth in rickets are bad, the permanent are usually

healthy; and Horner found the rickety teeth in only 4 per cent. of cases of lamellar cataract; whilst Mr. Hutchinson had very rarely found signs of rickets with these teeth. The mercurial teeth might often be seen together with those characteristic of syphilis, and might even mask them. He would observe also that they must be distinguished from the teeth called *craggy* by dentists, in which large plates of the enamel are deficient. These are usually unconnected with any diathetic cause; they are often hereditary, and exist in several members of a family, whilst the mercurial teeth exist in one member, with a history of convulsions in infancy.

Dr. BARLOW exhibited a specimen of Aneurism of the Heart, removed from a man forty-two years of age. The patient was a plasterer, who had never had rheumatic fever, but had had syphilis five years before. He had suffered from anginal attacks for three years, and from orthopnœa for twelve months, with cough and hæmoptysis, and, later, dropsy. There was increased fulness in the left subclavicular region, and absolute dulness in the third left interspace, a loud systolic murmur at the apex, and a diastolic murmur at the base. The patient gradually sank. The heart was found enlarged, the aortic, mitral, and tricuspid valves incompetent, the left ventricle hypertrophied and dilated, and at its base, immediately beneath the auricular appendix, was a sac the size of a small orange. This sac extended to the left and also in front of the aortic orifice, coming close to the septum; its orifice was large, the edge smooth and firm, and the wall fibrous. The sac communicated with the left sinus of Valsalva by a rounded orifice, due to ulceration. Dr. Barlow remarked that the only similar case on record was one recorded by Dr. Hope.

Mr. HULKE showed three interesting specimens of Epithelioma. The first was a large papillomatous epithelioma growing behind the left ear, and gradually extending forwards above it. It formed a lobulated, granular, coarsely cauliflower mass, which displaced the auricula outwards. It was stated to have commenced as a small knot behind the left ear eight months before her admission, and rapidly grew. The patient, who was 64 years of age, lived for nine months after her admission, but no operation was possible. Post mortem, it was found that the bone of the skull had been absorbed over a wide area, and the dura mater was involved by the growth. The second specimen was one of a large mass of epithelioma on the dorsum of the wrist and hand of a man fifty-six years of age, whose arm was removed. The patient stated that he had had an ulcer on the back of the hand following vaccination in infancy, which had healed and broken out again repeatedly all his life until eighteen months before the operation, when it had begun to enlarge. The third specimen was one of a forearm removed for a large cauliflower epithelioma on its posterior surface. The patient, who was sixty-three years of age, had had his hand crushed in early life, and ten months before admission a small wart had grown on the scar, which recurred after removal, and gradually extended. In neither case were the lymphatic glands involved. These two cases illustrated the fact that epithelioma was liable to occur in connexion with old scars—e.g., of burns.—The PRESIDENT inquired whether Mr. Hulke had observed the same rule with regard to psoriasis of the tongue.—Mr. HULKE replied that if by the term was meant the condition he had described as ichthyosis, he had seen so many cases end in epithelioma that he should reject a candidate for life insurance who had such a condition.

Mr. HOWARD MARSH exhibited a Diseased Testis removed from a child two years of age. When first seen, the epididymis was enlarged and irregularly knotted, and adherent to the testis, which was slightly enlarged and with a somewhat irregular surface. The whole was firm and inelastic. The diagnosis was at first doubtful, but as the organ enlarged somewhat rapidly, it was resolved to remove it, and subsequent microscopical examination showed it to be composed of a fibrous stroma forming loculi, which were filled with large round nucleated cells. Mr. Marsh remarked that the disease was rare in children, and that the tumour was much firmer than medullary disease of the testis in the adult usually is, whilst the hard nodulated condition of the epididymis simulated scrofulous epididymitis.

Dr. DOUGLAS POWELL exhibited two specimens of Aneurism of the Aorta. The first was from the case of a man fifty-five years of age, who had been a sailor, and whose illness dated from lifting a heavy weight six years before. He had great pain in the chest at the time, and had been ill for five years. His chief symptoms were intense orthopnœa and dysphagia. The physical signs were well marked, and there were two points on the chest, one to the left of the ensiform, the other in the third right interspace, which were prominent, and where there was some discolouration and liquid pulsation. He died gradually from exhaustion. The aneurism was found to be of large size and of globular shape, commencing somewhat abruptly at about one inch from the valves as a dilatation of the whole circumference of the vessel, which extended to an inch beyond the origin of the left subclavian. The tumour measured about five inches in diameter in each direction. A secondary sacculated aneurism projected from its forepart towards the sternum. There was no ulceration into any other organ, although all the thoracic organs were compressed. The patient, in fact, died of starvation instead of rupture. The second case was from a patient thirty years of age, who was employed in a pottery works, and there exposed to a high temperature. He also had to lift heavy weights. The right ventricle was found to be much dilated and hypertrophied. There was a well-defined oval aperture, about three-quarters of an inch above the aortic valves. The left ventricle was greatly hypertrophied, the valves natural, and the aortic orifice rather contracted. Immediately above the valves the aorta was dilated, and from its left side a pouch passed towards the left behind the pulmonary artery, and projected three-quarters of an inch beyond the left auricular appendix. There were several secondary shallow pouches on the inner surface, and some smaller ones in the wall of the aorta. In addition to these there were some patches in the wall of the vessel, which were found on microscopical examination to have the ordinary characters of endarteritis deformans.

The meeting then adjourned.

CLINICAL SOCIETY OF LONDON.

THE ordinary meeting of this Society was held on Friday, February 26th, the chair being occupied by Mr. Callender. The subjects brought forward and discussed were of unusual interest. Dr. Poore ably withstood the criticism of Dr. Buzzard and Dr. Althaus upon his case of Palsy of the Serratus, and fully maintained the ground which he had taken up against authorities on the subject. A remarkable case of Infrequency of the Pulse was brought forward by Mr. Pugin Thornton, which led to the relation by Dr. Hewan of interesting personal details on the subject. The last half-hour was occupied with perhaps the most extraordinary case ever brought before any society. It occurred in the practice of Mr. J. W. Teale, of Scarborough, and its relation excited the greatest interest, for it would prove to be subversive of all ideas as to bodily temperature hitherto accepted. The case was so faithfully reported that it disarmed criticism, and the discussion it gave rise to was singularly small. We have commented upon this case in another column.

Mr. CALLENDER showed specimens of Japanese Paper which had been selected by him from samples sent by Dr. Wallace, of Colchester, and which he had found very useful as a dressing. It had the great merit of cheapness, being about one-fourth the price of lint, for which it proved an excellent substitute. The paper is in appearance like extremely thin tissue-paper, and is used in layers of two sheets. He had used it largely as an antiseptic dressing, for which the paper might be prepared by coating it with mixtures of salicylic acid (40 gr. to the ounce), or carbolic acid (1 to 20), in gum mastic or mucilage, so that when brought into use it was simply necessary to moisten the paper and apply it over the part. Its extreme lightness and tenuity rendered it easy of application, and adapted it to inequalities of surface. He had used it in many cases of ulcers, wounds, and even for deep-seated inflammations.

Dr. DUCKWORTH exhibited a well-marked case of Ele-

phantiasis Græcorum, as contrasting with Dr. Southey's case of anæsthetic leprosy shown at the last meeting. The subject is a young man, twenty-one years of age, who was born in India, his father being a native of England, and his mother born in India of French parents. (The case was related by Dr. Robert Liveing in the Gulstonian Lectures for 1873, and has also been reported by Dr. Duckworth in the St. Bartholomew's Hospital Reports.) He left India for England at the age of nine, and two years and a half later the disease began in the form of brown patches on the arms and face. It then steadily progressed, and now the patient has a marked leonine aspect, the face being covered with thick tubercular folds, and the lobes of the ears being greatly enlarged and thickened; numerous tubercular patches occur also over the wrists, arms, legs, and feet. There is enlargement of the ulnar and right peroneal nerves. This patient, Dr. Duckworth remarked, was probably the first who in this country had been treated with gurjun balsam. It had been applied externally in the form of a lotion, and taken internally in lime-water. The tubercles seemed to break down under it, but the remedy could not be regarded as a specific, as Dr. Gubler affirmed. The patient's general health had also improved during his five months' stay in St. Bartholomew's Hospital, but this might probably be attributed to good diet.

The adjourned discussion on Dr. Poore's case of Palsy of the Serratus Magnus was then opened by Dr. Buzzard (who had moved the adjournment at the last meeting, and not Mr. Baker, as stated in our report). Dr. BUZZARD said that he was disposed to doubt that the muscle was totally paralysed. Circumstances had prevented him from examining the patient, but Dr. Poore had mentioned that the arm could be readily raised above the shoulder, and this Dr. Buzzard thought was inconsistent with total paralysis of the serratus magnus. Moreover the lesion was of traumatic origin, and it was therefore unlikely that both the nerve supplies of the muscle—that from the intercostal nerves as well as from the long thoracic—had been obstructed. Agreeing that the paralysis probably arose from neuritis of the long thoracic nerve, he did not find the difficulty which Dr. Poore did in accounting for the delay which occurred in the appearance of the paralysis after the injury. It would be only when induration had succeeded to the serous effusion first resulting from the inflammatory process that sufficient compression would be exerted upon the nerve to obstruct its function. In Dr. Buzzard's experience such a delay was most common. He referred to some cases, and amongst them to one in which paralysis and wasting in the extensor group of the forearm had commenced four weeks after a blow on the back of the shoulder in a railway accident, causing injury to the musculo-spiral nerve. It might be well, he said, to add that the condition had been verified by the measuring-tape and electrical examination.—Dr. ALTHAUS also thought it very curious that in Dr. Poore's case there should be no difficulty in raising the arm, differing as it did from all the cases of palsy of the serratus which he had seen or read. The serratus acts in this respect indirectly, by fixing the scapula. When the muscle is palsied, the lower angle of that bone is projected and turned inwards, and when this is pressed against the chest wall, the patient can lift the arm above the level of the shoulder. He related a case which he had seen in King's College Hospital under the care of Dr. Todd, in which there was bilateral palsy of the serratus following whooping-cough; there was great wasting of the serrati, and hypertrophy of the antagonistic muscles, but here the arm, which could barely be raised to the horizontal position, could be lifted readily above the level of the shoulder when the scapula was pressed against the chest-wall. A similar case, in a male who had paralysis of one serratus after exposure to wet, with violent exercise, presented the same inability to lift the arm above the shoulder, an inability at once removed by fixing the scapula. Busch had recorded a case of bilateral palsy of the muscle following sleeping on damp ground, in which the same effect was observed. He saw no reason to doubt the accuracy of Niemeyer's statement, the case he records being that of a carpenter, who, from carrying beams on the right shoulder, had paralysis of the right muscle, and later of the left, after he had been obliged to use the left shoulder for the same purpose. Another case of inability to raise the arm above the level of the shoulder was due to a tumour pressing upon the long thoracic nerve where it perforates the scalenus medius. He thought, then, that a single case was not sufficient in opposition to this large mass of evidence on the other side, and he inquired whether during the time that the patient was not under Dr. Poore's observation he may not have had the symptoms which had since passed away.—Dr. POORE, in reply, maintained that in his case there was complete paralysis of the serratus when he showed the case to the Society. The contraction of the serratus must cause the base of the scapula and the ribs to approach each other, and he had made repeated observations on the case since the last meeting of the Society, and found that there was not the *least* action of this kind on the palsied side. He sent round diagrams showing that when the serratus was brought into action on the healthy side the base of the scapula was drawn forcibly outwards, whereas no movement, or only slight upward and inward traction, of the upper border of the bone occurred on the paralysed side when the arms were held forward. There is now marked compensating hypertrophy of the trapezius and rhomboids which steady the scapula, and thus enable the arm to be raised. (Photographs were exhibited, showing that when the arms are raised the trapezius and rhomboids stand out very prominently on the side of the paralysis, but not at all on the healthy side.) By the courtesy of Mr. Carsten Holthouse he was enabled to bring another example of this affection before the Society. This case resembled the other in the projection of the scapula, which was even more marked than in the former case, in the want of expansion of the thorax on the side of the paralysis, in the bulging of the chest-wall, and in the absence of the digitations of the serratus on the side of the palsy. It differed from it in being complicated with wasting of the trapezius and rhomboids, so that the deficiency was more marked; and in its origin, the paralysis following in about a week after the patient had slipped down and struck the shoulder. This patient can raise the arm above the head to a certain extent, but not fully until the scapula is steadied against the chest-wall. Dr. Poore was not prepared to state, however, that in his case the patient *never* had any difficulty in raising the arm, but he asserted that, although the paralysis of the muscle was complete now, that power was retained.

Mr. PUGIN THORNTON read notes of a case of Exceeding Infrequency of the Pulse. The patient, a thin, anæmic woman, aged twenty-nine, was admitted into the Hospital for Diseases of the Throat in November, 1872, suffering from severe syphilitic laryngitis, for which tracheotomy was performed. The rate of her pulse was then 40, and the operation was followed by an epileptiform seizure, to which it appeared she had been subject. She remained at the hospital for four weeks, taking iodide of potassium, and shortly after her return home she had slight epileptiform attacks. On her readmission in December, 1872, her pulse was found to be beating only at the rate of 16 per minute, pulsations being strong. The frequency of the pulse then gradually increased: in January, 1873, it was 20, tracings (which were shown) showing a small beat to occur after every tenth pulsation. On her discharge from the hospital her pulse was 40, at which rate it remained in April, 1874. A hæmic murmur was heard over the heart, but no evidence of organic disease. During her second stay in the hospital the canula was removed from the trachea, all symptoms of laryngeal stenosis having disappeared. When last seen, about a month ago, the pulse was 48, and the patient had grown stout. Her epileptiform attacks commenced about 1870, during which year she was for some time under the care of Dr. Ransom, of Nottingham, whose notes were read by Mr. Thornton. It would appear that the fits were then very frequent, but of short duration, accompanied by pallor of face, loss of consciousness and motor power, and cessation of the heart's action (on one occasion for as long as fifteen seconds). The return from the fits was gradual, the pulse, at first intermitting, gradually regaining its normal rate, which was then 24. Mr. Thornton expressed his inability to explain the infrequency of the pulse in this case, only he thought it had a syphilitic origin. Possibly the vagus was in some way affected by the syphilitic poison.—Mr. CALLENDER thought these cases were not uncommon, and in dealing with cases of injury to the head he always bore in mind the possibility of the patient having normally a slow rate of pulse. The general health did not appear to be much affected by it, but some cases probably suffered from

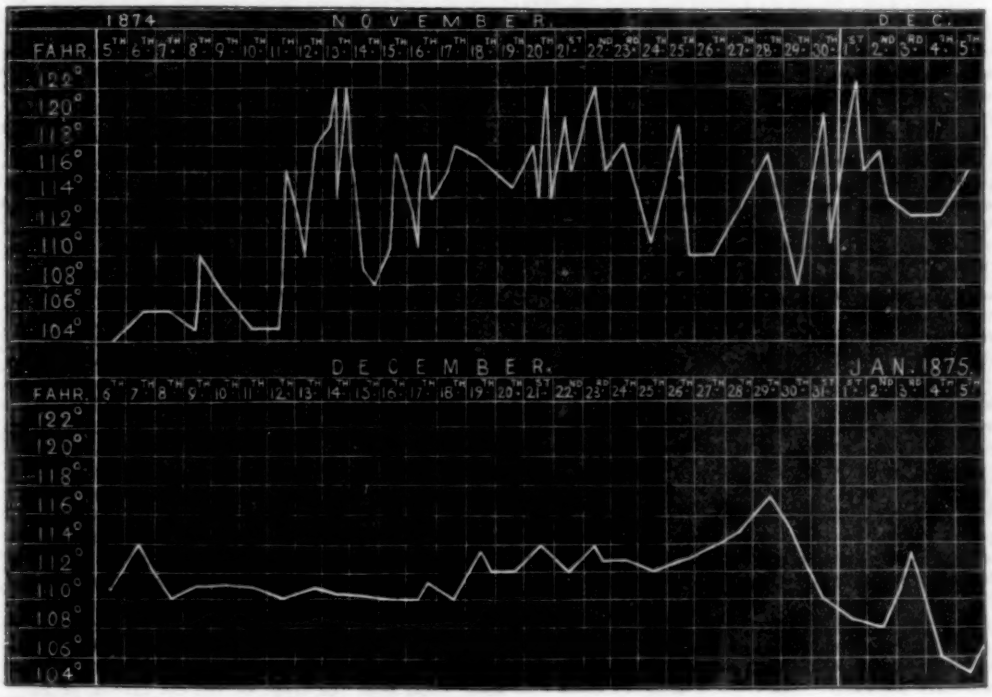
exposure to cold, owing to the slow rate of circulation.—Dr. WHIPHAM referred to a case published in the Medico-Chirurgical Transactions, of a gentleman in whom an abnormally slow pulse, associated with urgent dyspnœa and syncopal attacks, followed upon an accident in the hunting-field five years before. At the necropsy the foramen magnum was so small as barely to admit the tip of the little finger, while the vagi and right superior cervical ganglion were much enlarged. Might not the alteration in the cervical ganglion have been such as to interfere with the action of the accelerator nerve?—Dr. SYMES THOMPSON mentioned that the late Mr. Hodgson, during the last five years of his life, had a pulse seldom above 32 per minute. Mr. Hodgson had concluded that this in no way interfered with health, and wished particularly to discourage the idea that it was necessarily owing to fatty degeneration of the heart, affirming that the heart acted as completely, although more slowly, than if it had the normal rate. Any great exertion increasing the action of the heart was to him very exhausting.—Dr. SOUTHEY inquired whether the urine had been copious at any time; for the effect of digitalis in producing diuresis was probably due to the increased blood-pressure owing to the slower action of the heart induced by that drug. He did not think a slow pulse was necessarily evidence of muscular degeneration, for he knew a case of a man who lived to the age of eighty, and who from thirty years old had a pulse-rate of only 18 to 20 beats per minute. Were the fits in Mr. Thornton's case due to the diminished blood-supply to the brain?—Dr. MAHOMED had met with a case of a woman at sixty-five, in whom the sphygmograph showed that the slow rate (20 to 24) was due to prolonged rest of the heart in diastole. This patient (a well-known *habituée* of the London hospitals) suffered from great feebleness and tendency to syncope; she attributed her illness to the privations and mental anxiety she sustained during the siege of Paris, where she was formerly resident.—Dr. HEWAN made a most interesting contribution to the debate by relating his own case. He said that about twenty-one years ago, after prolonged study and confinement, his pulse, which had been 72, fell to 55, and he felt very cold. From that date it has steadily decreased in frequency, and ten years ago it was but 24. He has never had a fit, or fainting, nor does he suffer from cold; sometimes having chilblains, but not more than other people. That he was capable of great physical exertion he instanced the fact of his ascending a high mountain, when abroad, and being second at the summit, without inconvenience; the pulse on that occasion rising to 40. His digestion is good; the urine is in no way altered. About eight years ago, during a severe attack of rheumatic fever, the pulse did not rise above 32; while eight weeks ago, under a mild attack of gout with irritative fever, the pulse reached 64 and 68, and on convalescence fell to 32 and 28, its present normal rate.—Dr. ALTHAUS mentioned that Napoleon I. had a slow pulse, between 30 and 40 beats per minute, and that it was said of him that he never was in good health except in the excitement of battle, when the pulse rose to 60.—Mr. THORNTON, in reply, said that the secretion of urine was not noticeably deranged. He mentioned that the pulse of a horse was 16 per minute.

Mr. J. W. TEALE then read notes of a case of Remarkable Elevation of Temperature (to 122° F.) after injury to the spine. The patient, a young lady, was thrown in the hunting-field on September 5th, 1874, by her horse taking a standing jump at a five-barred gate, and, catching his feet in the topmost bar, falling heavily upon its rider. She staggered to her feet after momentary unconsciousness, and was seen by Mr. Teale within five or six hours of the accident. She was then in a state of collapse, and complained of pain in the back; there was fracture of the left fifth and sixth ribs. A few days after her temperature was 101°, but became normal in the space of a fortnight. The fractured ribs united; but although pain and tenderness still existed over the sixth dorsal spine, she retained perfect power in her limbs. She was then seen by Mr. Pridgin Teale, of Leeds, and the conclusion arrived at was that there was subacute inflammation of ligaments. On October 3rd the temperature rose to 100°, and then to 101°; still tenderness and pain; sleep was disturbed, and she now suffered from jerkings of the legs. In spite of the application of ice-bags to the spine, the temperature slowly rose, reaching 105° on Nov. 3rd, and 106° on the 6th. It was then thought that there was inflammation of the spinal ligaments and intervertebral substance, and probably also of the membranes of the cord. Voluntary power over the lower limbs was still retained. On the evening of Nov. 8th the temperature reached 110°. Leeches were applied to the spine, and mercurial ointment rubbed into the thighs. On the 11th the temperature rapidly rose from 105° (to which it had fallen on the 9th) to 116°; on the 12th it fell to 110°, to rise again to 118°, reaching in the early morning of the 13th the astonishing height of 122°, the index of the thermometer becoming buried in the bulb at the top of the instrument, 122° being the limit of its graduation. A fall of 8° the same day was followed by a rise to 122° again in the evening, while on the 14th it had fallen again to 108°. During this period the pulse kept at about 120, the patient rapidly emaciated and often appeared to be sinking. Deglutition became very painful, and nutrient enemata were had recourse to. The ice-bags and mercurial treatment were still pursued, the latter being left off on the 16th on account of the gums becoming slightly tender. She now began to improve slightly, the pulse falling to 110, swallowing became easier, the twitchings in legs less frequent, and the dorsal pain diminished. But, nevertheless, the thermometer recorded most extravagant figures, which were shown to the Society on a chart. (We append below the whole series.) Thus, from the 16th Nov. to the 23rd it ranged between 114° and 118°, on two occasions reaching 120°; from Nov. 23rd to the 1st Dec. it fluctuated within wide limits—i. e., between 108° on the 29th to 122° on Dec. 1st, a difference of 10° sometimes occurring between two consecutive observations. From Dec. 1st it began to subside, reaching on the 8th 110°, which modest level it maintained with but slight variation until the 19th, the only noticeable phenomenon occurring in her general condition, which still steadily improved, being sudden swelling of the tongue on Dec. 12th. Decided improvement still continued save in the course of the temperature, which ranged between 112° and 114° from the 19th to the 27th, rising to 117° on the 29th, which proved its final outburst; for thence it somewhat rapidly declined, reaching 105° on Jan. 5th, and becoming normal on the 10th. On Jan. 22nd the patient was apparently convalescent, appetite being good, and thenceforth she took out-door exercise. It was concluded that the cord itself had not been primarily implicated, but that the rise in temperature must be attributed to the extension of inflammation to the cord. Mr. Teale said that during the case no fewer than seven different thermometers, made by Harvey and Reynolds, had been used, of which four had received Kew certificates. As no ordinary clinical thermometer registered above 118°, one was specially provided which registered 122°; on December 1st the index of this instrument buried itself in the bulb, and as the index measured three inches, the temperature might almost be said to have reached 125°. (The thermometer was passed round for the inspection of the members.) The temperature was generally taken in the axilla, one thermometer on each side, and then the instruments reversed. Usually the readings of the left side were about ½° higher than those on the right, but owing to the patient's emaciated and weakened condition the actual body heat may have been even higher than the record showed. On several occasions the temperature was taken between the thighs; once it showed 116° there, while it was but 113·5° in the axilla. On December 11th it was 111° in the rectum, and 110·4° in the axilla. The patient could never bear the thermometer to be placed beneath the tongue. The thermometers were inspected by two or three trustworthy witnesses before and after each application, and the results were always immediately recorded in writing. No hot-water bottles were near the axillæ, as had been good-naturedly suggested. Sometimes when the thermometrical readings were highest, the hands, feet, and forehead were icy cold, and the patient remarked that she felt as if "her blood was on fire." The urine was passed with difficulty in hot towels; it appeared almost a mass of lithates, so that no observations on it could be taken. The menses, which appeared once after the accident, were then suppressed until the 20th of January, when convalescence was established. The chart exhibited showed the rapid alternations of temperature within a few hours, but during the space of seven weeks it never fell below 108°. With regard to the nerve-symptoms, there was at no time any distinct loss of sensa-

tion, nor any obvious paralysis; but on her recovery it was noticed that the left leg was the weaker of the two. Since the paper was sent in the patient, who had returned home, a distance of 100 miles, having had a normal temperature for five weeks, and been walking about apparently well, has experienced a relapse. At the end of her journey she had a severe hysterical attack (similar to many which she experienced during her illness), and the temperature again rose, once reaching 110°. Better accounts had since been received of her, and although her temperature was still 105° to 106°, it was not found absolutely necessary to confine her to bed.

The accompanying chart, exhibited at the meeting, shows the temperature during two months. The chart did not allow of accurate estimation of decimals.

tended by the present case.—Mr. JONATHAN HUTCHINSON thought that there was an essential difference between these cases of abnormal temperature following lesion of nerve-centres and those which formed part of the course of a specific fever. He had for some time past been engaged in studying the effects of injury to the spine, and had concluded that there were two classes of opposite facts in injury to the cervical portion of the cord—in the one accompanied by very low, in the other by very high, temperature. He related a case in which life was prolonged five days after fracture of the seventh cervical vertebra. There was complete paraplegia, with priapism, but marked coldness of lower limbs and penis, the temperature never rising higher than 4° below normal. Several cases are now on record where the temperature fell to 81° or 82°, but perhaps more



Mr. CALLENDER thought the Society much indebted to Mr. Teale for having come so far to read to them so remarkable and unique a case. The highest temperature following on spinal injury with which he had personally met was 107°. He inquired what relation the pulse and respiration frequency held to the temperature in the present case.—Dr. GREENHOW said that he did not venture to offer any explanation of this remarkable case. The Transactions of the Society contained several cases of hyperpyrexia occurring in rheumatic fever, and he had only seen one case of that class in which the temperature had reached 110°. He was accustomed to teach that a fatal termination would ensue in a case of rheumatic or other fever in which the temperature rose above 108°, unless reduced by the cold bath. This case bore out what he had always thought, that the high temperature was something superadded to the disease, and probably depended on nervous disturbance.—Dr. FARQUHARSON referred to a case of excessive lowering of temperature (to 81°) after spinal injury, brought before the Society by Dr. Nieden two years ago, and remarked that, according to some observers, injury to the cord high up produced great lowering of temperature, while others affirmed the exact contrary. Many held that a temperature of 107·5° is incompatible with life; and, moreover, there is acute fatty or parenchymatous degeneration of organs in these cases, as shown by Liebermeister and others, which would render the maintenance of life above that standard impossible. The limits of this resistance to heat must be greatly exwhere it, on the other hand, rose to 110°. But all these were cases of crushing of the cord, and all terminated fatally. In Mr. Teale's case he suspected that there must have been some change taking place in the cord itself, and that the mischief was not wholly external to the cord.—Mr. PRIDGIN TEALE (Leeds) saw the patient at the onset of the very high temperature, it being then 104°, and also three weeks later, when it was 114°. Unless he had known that the temperature was so high, he could not have thought that she was so ill; and it was certainly most remarkable that this great temperature co-existed with apparently good health. From this case alone we must abandon the idea that the temperature *per se* is an element of danger. It is clear that certain nervous injuries are capable of leading to great changes in temperature; and he related a case of fracture of the skull, sustained in the hunting field, in which this reached 109°. After sudden apoplexy the heat of the body is often much raised.—Mr. J. W. TEALE, replying to Mr. Callender, said that the pulse at no time exceeded 120, and was usually between 90 and 100, while there was no notable increase in the frequency of the respiration.

THE Bessemer saloon-ship is expected in the Thames in a few days, and after a few trial-trips will, if successful, be attached to the Continental service of trains of the London, Chatham, and Dover Railway.

Reviews and Notices of Books.

Heredity: a Psychological Study of its Phenomena, Laws, Causes, and Consequences. From the French of TH. RIBOT. pp. 393. London: Henry S. King and Co. 1875.

WE have been much pleased with this book. It is written in a very clear and intelligible style, and has been admirably translated. The first part deals with the phenomena or facts of heredity, and these the author takes in the following order: heredity of instincts; heredity of sensorial qualities; heredity of memory; heredity of imagination; heredity of the intellect, of the sentiments and passions, and of the will; heredity and national character; and, lastly, morbid psychological heredity.

Some of the instances of heredity given in the introduction are amusing enough. After noticing fecundity, longevity, immunity from contagious diseases, and possession of muscular energy, M. Ribot alludes to loquacity, and mentions the case of a servant-girl who would talk to others so continuously that they could not get in a word edgewise, and would, *faut de mieux*, talk aloud to herself. She had to be dismissed, and, on parting with her employer, said, "It is no fault of mine; it comes to me from my father; the same fault in him drove my mother distracted; and one of his brothers was like him."

M. Ribot notices, what must have struck all observers, that the transmission of acquired modifications appears to be very restricted, even when occurring in both the parents. Thus deaf-mute parents often have children who can both hear and speak; and the practice of circumcision for four thousand years or more has not yet rendered the rite unnecessary. A remarkable fact in connexion with this has, however, been put upon record by M. Quatrefages—an observer quite beyond suspicion. It is, that the Esquimaux are accustomed to cut off the tails of the dogs they harness in their sledges, and that these animals often have tailless offspring.

In speaking of the heredity of instinct, or rather—for he does not dwell long on this—on the heredity of acquired modifications of instinct, he points out that in districts where fox-hunting is much pursued, the cubs, on first coming out of their earths, and before they can have acquired any experience, are more cautious, crafty, and suspicious than are old foxes elsewhere. The truth of Knight's axiom "a good hound is bred so," as well as his observation that English woodcocks have become wilder, will be admitted by most of those who hunt or shoot much. Whilst it is true that instinct is innate, it is not less true that it is variable and modifiable by external or internal conditions. As an example, the Rhine beaver may be given. In winter he plasters his wall to windward; originally a builder, he is now a burrower; formerly gregarious, he is now solitary. M. Ribot, who is not indisposed towards Darwin's theory, quite recognises its difficulties, and alludes to it, without, however, attempting to explain the very great difficulty that arises from the existence of neuter insects.

The laws of heredity laid down by M. Ribot are—1. Direct heredity, which consists in the transmission of paternal and maternal qualities to the children, and differs according as the child resembles the father and the mother equally or unequally. 2. Reversional heredity or atavism, which consists in the reproduction in the descendants of the moral or physical qualities of their ancestors, as between grandfather and grandson. 3. Collateral or indirect heredity, which is of rarer occurrence than the foregoing, and subsists between individuals and their ancestors in the indirect line—uncle or granduncle and nephew, aunt and niece. 4. Heredity of influence, which consists in the reproduction in the children by a second marriage of some peculiarity belonging to a former spouse. Each of these laws is taken up in succession, and elaborately worked out.

Upon the interesting point, which has been so much debated, whether a child takes after the father or mother in its physical powers and moral attributes, and which has been answered both ways, M. Ribot gives a very cautious reply, only declaring that there is always *a preponderance* of the qualities of the father or mother. He notes a well-marked instance in which one parent transmitted the entire physical, the other the entire moral nature. This was the case of Lislet-Geoffroy, engineer in Mauritius. He was the son of a white man and a very stupid negress. In physical conformation he was as much a negro as his mother; he had the features, the complexion, the woolly hair, and the peculiar odour of her race. In moral constitution and intellectual development he was so thoroughly a white that he succeeded in vanquishing the prejudices of blood, so strong in the colonies, and was admitted into the most aristocratic houses. At the time of his death he was Corresponding Member of the Academy of Sciences.

Another point which we have more than once discussed in these pages is the effect of consanguineous marriages in producing and maintaining disease, and M. Ribot devotes a most interesting chapter to it, under the title of Heredity and the Law of Evolution. He takes the common-sense view, that as the tendency of heredity is to reproduce the whole being, it follows that if the parents enjoy perfect health, consanguinity will tend to preserve it in their descendants, and then, so far from being prejudicial, it will have good results. On the contrary, such unions will be injurious in proportion as the morbid predispositions common to both parties are more marked. He hence agrees with Quatrefages, who maintains that "near relationship between father and mother is not in itself hurtful, but that, in virtue of the laws governing heredity, it often becomes so; and hence, in view of the eventualities to which consanguinity leads, it is at least prudent to avoid consanguineous marriages." He admits the possibility of greatly improving the human race by careful selection, with a view to progeny, but, like the rest of the world, thinks it can never be carried into practice. He gives a remarkable piece of evidence from Broca, showing that in France the mean capacity of skulls has increased since the Middle Ages, those from the crypt of the old church of Saint Barthélemi, in Paris (twelfth century), having a mean capacity of 84·777 cubic inches; those from the Cimetière des Innocents, used from the thirteenth to the eighteenth century, having a mean capacity of 83·783 cubic inches; whilst those of the nineteenth century have a mean capacity of 86·901 cubic inches.

In some instances M. Ribot appears to us to be a little too credulous. Thus, whilst speaking of the heredity of longevity, and maintaining, quite truly in our opinion, that longevity depends far less on race, climate, profession, mode of life, or food, than on hereditary transmission, he observes that "a collier in Scotland prolonged his hard and dreary existence over *one hundred and thirty-three years*, and worked in the mines after he was eighty." Where are the proofs of this astonishing statement? We have ourselves obtained positive information of a member of a long-lived family who reached his one hundred and second year, but we share in Mr. Thom's doubts of life being prolonged much beyond this limit.

We must here take leave of Prof. Ribot's work, strongly recommending its perusal to our readers as containing a large number of very interesting facts most lucidly arranged, and a very luminous digest of all that is at present known upon the subject.

THE LANCET.

LONDON: SATURDAY, MARCH 6, 1875.

NOT the least important sign of the vigour of the youngest Medical Society in London is the possession of that attribute of youth—an eager desire for the accumulation of new facts; for ever since its foundation it has been the means of bringing before the notice of the profession many instances of clinical practice at once remarkable and astonishing. But we opine that no case yet brought before the Clinical Society was ever more remarkable or more astonishing than that which Mr. TEALE, of Scarborough, read at its last meeting. For, in spite of the heavy demands upon his time as a general practitioner in a fashionable watering-place, the case he brought was so carefully observed and recorded that its facts could not be disputed; and although the strange lack of criticism on the paper may have been in part due to the widespread consternation among the members at such a revolution of their notions, yet it was impossible to question the accuracy of the record. Referring our readers to the report on a previous page for the details of the case, we need only here point out its most salient features, before we endeavour to show to how great an extent the whole physiology of animal heat and our knowledge of the resistance of life to extreme temperature of the body must be modified if this case may be accepted as conclusive. A young lady, thrown from her horse in the hunting-field at the beginning of September, 1874, sustained fracture of two of her ribs and some obscure injury to the spine. In due course the fractured bones united, and all would have gone well but that the pain and tenderness in the back ominously persisted. Symptoms of spinal meningitis set in, and, concurrently with them, the temperature of the body, which had regained the normal shortly after the accident, began to rise. One month after the accident it was 101°, in another month it reached 105°, and thence its extraordinary and unprecedented progress can only be reckoned by days. Between November 8th and 12th it fluctuated between 110° and the great elevation of 118°. But it did not stop here. The next day it on two occasions reached 122°, falling in the interval to 114°. Thence the rise and fall of the index of the thermometer was strange in the extreme, and it would be tedious to refer here to all its fluctuations. Suffice it to say that it kept for three weeks between a minimum of 108° (on one occasion only) and a maximum of 122°; throughout December it registered the comparatively low level of 110° during the first half of the month, mounting up to between 112° and 114° during the second half; and then, in the early days of January, it rapidly subsided to 104°, becoming normal on the 10th of the month. The condition of the patient during this very super-normal state of body heat was, save in the periods of highest range, apparently not one of extreme danger; we gather, indeed, that during December her general health was improving and the spinal symptoms were slowly but surely subsiding. Nor were the circulatory or respiratory functions much deranged, the pulse never being above 120, and the respiration not being notably embarrassed. To be sure, she emaciated much and was extremely prostrate, the catamenia ceased, and the urine was very scanty and loaded; but a continuous body heat of 102° or less, lasting for two months, would *a priori* have done as much.

In dealing with this case, we may at the outset put aside all those cases which have been dignified by the name of "hyperpyrexia" which occur in the course of acute rheumatism or the specific fevers (in which the temperature reaches an extravagant height in a short space of time, with fatal termination unless artificial cooling of the body be adopted), and limit ourselves solely to those affections in which more obviously the nervous system is alone concerned. For although it is highly probable, as Dr. WEBER and others have pointed out, that in the former class the hyperpyrexia has its origin in disturbance of the nervous centres, yet Mr. HUTCHINSON justly remarked that the conditions of a specific fever must be very different from those obtaining in uncomplicated traumatic lesions of those centres. What, then, is our present knowledge, or rather what has hitherto been our experience in this respect? There are numerous cases on record in which injury to the spinal cord, mostly in the cervical region, have produced extreme elevation of body heat; that of Sir BENJAMIN BRODIE, recorded in the twentieth volume of the Medical and Chirurgical Transactions, having become classical. On the other hand, cases, such as those quoted by Mr. HUTCHINSON and Dr. FARQUHARSON, have also occurred in which spinal lesions have been followed by extreme depression of temperature. In neither case, however, has recovery ever taken place, death seldom being delayed more than a few days at the most, and the cord being irretrievably damaged, generally from fracture or dislocation of the vertebræ. In Mr. TEALE'S case, however, the symptoms were rather those of meningitis; there was irritation of the cord, but no disorganisation. Cases such as these, and the result of experiments upon the spinal cord in the cervical region, naturally point to the presence of some heat controlling centre in the nervous system. But it must be confessed that the exact determination of this and its nature are still to be desired. Most physiologists agree that there is such an agency governing animal heat: some—as BROWN-SÉQUARD and SCHIFF—attributing the disturbances in temperature resulting from injury to the cord to interference with the vaso-motor tract; others—as TSCHESCHICHIN, NAUNYN, and QUINCKE—believing that the nervous system acts more directly, the first-named observer stating as the result of his experiments that there is a controlling centre in the brain which regulates the action of the spinal cord. But the most recent investigator, MURRI of Florence, denies the existence of any such influence on the part of the nervous system.

The most important question raised by the case is as to the resistance of the animal body to high temperature. What is the temperature compatible with animal life and the due performance of its functions? Hitherto 107·5° was supposed to be the extreme limit to which the human body could be heated without a fatal termination—that is to say,

heated for a certain time continuously without intermission. BERGER and DE LA ROCHE found that "animals surrounded by air heated gradually to 200° speedily die, their temperature being then raised about 13° above their natural standard"; if we may suppose a like capacity of resistance in man, 110° may fairly be placed as the extreme limit. Of Dr. WEBER'S two cases of spinal injury followed by elevation of temperature (Clinical Society's Transactions, vol. i.), one died within eight hours of the receipt of the injury, the temperature rapidly rising from 100·4° to 111·2° at death, and the pulse from 72 to 140; the other dying seventeen hours after the receipt of the injury, with a temperature of 110°. Such instances might be multiplied without end, from clinical and physiological records. There are also notable changes in the tissues and glands in all cases where the temperature of the body is so raised. Cell life is abolished at even lower temperatures than 110°; and Dr. LEGG records in the twenty-fourth volume of the Pathological Transactions (page 267) marked parenchymatous degenerations in the liver, heart, and kidneys of rabbits whose natural temperature had been raised to the height of from 107° to 112°. This obvious difficulty was acknowledged by Mr. TEALE, and is one not easily surmounted.

Space does not permit us to multiply the long array of physiological facts which could be brought to bear upon the case in question. We have quoted sufficient to show that there are strong *prima facie* reasons against the probability of life—the life of the tissues by themselves or of the organism as a whole—being maintained at the temperature of from 110° to 114°, which this patient possessed for *weeks*, and then recovered—not to mention the astounding flights to 120° and 122° that the thermometer occasionally took. Is it possible that we must seek a solution out of this difficulty in the individual peculiarities of the case? Was this young woman, alone of all human beings, capable of resisting a body heat so great that its simple radiation from the surface of her body must almost have been felt by the bystanders? Nor can we solve the difficulty which the rate of her pulse and the quietude of her respirations afford to us. Surely, with such rapid and intense oxidation as must have been continuously in progress, there should have been —and here, again, we confess we can only speak *a priori*— increased amount of oxygen inhaled and increased rapidity of circulation to convey the oxygenated blood to the fast-burning tissues.

There is, however, one element in the case on which we do not think the author of the paper laid sufficient stress. The patient was highly hysterical. She had several fits, we are told, in the course of her illness, and the relapse on her return home was ushered in by one of extreme severity. Among all the inexplicable vagaries of the hysterical neurosis, are we now to add this one, that of extreme susceptibility to variations in the bodily temperature, conjoined with extreme vitality under such superlative conditions? Or may we not justifiably presume that the same perversion of the nervous system which might produce such susceptibility might also lead the subject of it to aid almost unwittingly in mystifying her attendants? We must leave the case in the hands of our readers. But—and we are sure Mr. TEALE will agree with us—we must for the present forbear, upon the knowledge of this single case, to modify all the ideas that have been gained from the results of hundreds of experiments and the records of numerous cases —a modification which would necessarily follow from accepting in its entirety the fact that a young female survived sixty days of pyrexia ranging from 105° to 122°.

THE preamble to Mr. CROSS'S Bill is most instructive. "Whereas," it says, "various portions of many cities and boroughs *are* so built, and the buildings thereon *are* so densely inhabited as to be highly injurious to the moral and physical welfare of the inhabitants, ... be it enacted," &c. Now the interesting point of this sentence is the fact that the present tense is used instead of the past. That various portions of cities and boroughs *have been* badly built one could readily understand; but, seeing the word "are," the intelligent reader naturally asks what power or control the State has over the builders of houses, and, if the State has any power, why is it not exercised? Most of our readers are aware that in 1868 was passed an Act called the "Artisans and Labourers' Dwellings Act," which is otherwise known as "M'CULLAGH TORRENS' Act," the object of which was to regulate the sanitary condition of houses generally, with powers in extreme cases of closure and demolition. Besides this, the Metropolitan Building Act of 1855 prescribes the conditions of construction with reference to every description of building agency within the metropolis. By M'CULLAGH TORRENS' Act the expense of repairing, demolition, or rebuilding, as the case may be, is borne by the owners, and the scope of this Act is far narrower than that of Mr. CROSS'S Bill. Our own account, given in this journal nearly twelve months ago, of the condition of artisans in Soho and elsewhere, showed how practically useless was TORRENS' Act. Those who wish for information on the shortcomings of the Metropolitan Building Act had better consult a paper read before the Social Science Association in January, 1873, by Mr. JOHN LIDDLE, the medical officer of health for Whitechapel. This gentleman very properly remarks that, "unless the existing evil of permitting new houses to be built with a total disregard of such arrangements in the structure and surroundings of a dwelling-house as are necessary for healthy occupation be abolished, all the labours of sanitary officers in getting unhealthy houses closed under the Nuisances Removal Acts, or pulled down under the Artisans and Labourers' Dwellings Act, will be comparatively useless if similarly unhealthy houses can be built elsewhere, or even perhaps on the old foundations of those which have been condemned."

One radical defect of the Building Act is that "no one authority seems to be responsible for seeing that a house is so constructed as to be fit for habitation." In some matters the district surveyor has to be consulted, while in others the local board possesses the power of control. Mr. LIDDLE points out that houses may be and are still built with old and worn-out bricks upon foundations of "dry rubbish" and other abominations; that no provisions are made for the proper drainage of the area upon which houses are built; that a house may be built without any provisions for ventilation, for water-supply, or for sewerage, and, in short, in

defiance of most of the well-recognised laws of hygiene. From this it appears that a new house built to-day might be condemned to-morrow under Mr. CROSS's Bill and demolished accordingly. The Bill, in fact, must be regarded as an heroic curative measure for evils which existing legislation is, curiously enough, powerless to prevent. We think a paragraph might well be added to the preamble to the following effect: "Whereas previous legislation has proved ineffectual in preventing the evils with which it is proposed this Act should deal, ... be it enacted," &c.

The question which arises is—Will this Bill prove more effective than its predecessors? Now by Clause 3 it is proposed that before an improvement scheme can be entertained an official representation shall be made "that diseases indicating a generally low condition of health amongst the population have been from time to time prevalent within a certain area." In other words, the horse having been stolen, the stable-door will be attended to. The only reliable information as to disease in a certain area to be obtained at present is the death-rate. We have no system of registration of disease, and it is plain that the inhabitants of a certain area may be suffering enormously from disease, may be going in shoals to the neighbouring hospitals with diarrhœa and phthisis, may be emigrating from the unhealthy area merely to die elsewhere, and the medical officer and the sanitary authority be ignorant of the fact. For this Bill to work effectually a proper system of registration of disease seems imperative. We are sorry that the Bill should not propose to deal with areas in which conditions tending to disease are rife.

In order for the proposed Act to produce improvement, it is proposed:—1. That disease should be prevalent in a certain area, and that such disease should be due to the condition of the dwellings. 2. That a representation thereof should be made either spontaneously by the medical officer, or by the medical officer urged thereto by twenty ratepayers of the district. 3. Such area must be proved incapable of sufficient improvement in any other way than by an "improvement scheme." 4. The authority to which such representation is made must be satisfied (*a*) as to its truth, (*b*) as to the practicability of applying a remedy, (*c*) as to the sufficiency of their resources, and (*d*) of the advantage likely to accrue *to the district*. The propositions *a*, *b*, *c* being allowed, we should have thought that *d* must have followed as a natural consequence; but possibly some vestrymen may think that the greatest advantage to a district might accrue by neglecting the poor, driving them elsewhere, and so throwing the expense of them upon some neighbouring parish. But to resume. 5. The authority shall pass a resolution that a scheme is necessary (i.e., a majority of the local board must be of one mind on the point).

As to the scheme, it is proposed to enact—1. That it shall be accompanied by maps, particulars, and estimates; and that provision shall be made for the adequate housing of the displaced population. 2. An outline of the scheme shall be duly advertised, and proper opportunities for inspecting it shall be accorded to all interested persons. 3. The opinion of all interested owners, tenants, and occupiers shall be ascertained by the serving of notices. 4. This being done, a petition shall be presented to the "confirming authority" (a Secretary of State or the Local Government Board, as the case may be), "praying that an order may be made confirming such scheme," and such petition shall be accompanied by a copy of the scheme, a list of interested dissentients, and any further information which may be required.

If the confirming authority "think fit to proceed with the case"—1. They shall direct a local inquiry to be held. 2. After receiving the report of such inquiry, they may make a provisional order authorising the scheme. 3. A copy of the provisional order shall be served on all interested parties. Lastly, if the provisional order receive the sanction of Parliament, it will become valid, and it will be the duty of the local authority to proceed with the scheme.

We suppose it is necessary to proceed in this very constitutional way, but it is evident that this Bill will prove a very poor substitute for a despotic HAUSSMANN, and it is more than likely that vestrymen and occupiers will fight so hard at times that it will be found as inoperative as the other Acts we have mentioned. The expense of all these preliminaries cannot fail to be enormous, especially when opposition has to be encountered, which is too likely to be the rule; and, since all the expense is to be borne by the local authorities, we fear there is but small chance of making the various improvements self-supporting. The case of a building society acquiring land in the ordinary way of business and erecting dwellings thereon is in no way comparable to that of a local authority acquiring land by compulsion, and we fear the latter will be so heavily weighted by the observances due to red tape and the encountering of petty litigation that improvement schemes will prove a permanent burden on the rates.

We wish that some of the rich city companies would turn their attention to artisans' dwellings. Many of these corporations possess blocks of almshouses standing on spacious areas in various parts of the metropolis. Would it not be possible in many cases to move the almshouses to the outskirts of the town, or even completely into the country, and upon the sites thus vacated to erect dwellings for the working classes? Much benefit would be derived from such a course by all parties concerned. The aged recipients of alms would get the benefit of country air, the London artisans would get the benefit of wholesome dwellings in town, and the companies who launched out in an enterprise of such a nature would probably increase their revenues. These time-honoured corporations have shown of late a most laudable yearning after philanthropic projects, and we commend this one most heartily to their consideration.

ONE by one the old associations of the College of Surgeons of England are passing away. The resignation of Mr. HILTON from the Board of Examiners breaks another link in the chain that has long bound down the Council of the College to its old traditions. After having filled the post of Examiner for nearly ten years, Mr. HILTON has been induced to relinquish his grasp a few months before his term of office would naturally expire. Although a thorough anatomist and a skilled surgeon, Mr. HILTON as an Examiner was unpopular both with candidates and teachers. He was somewhat deficient in the *suaviter in modo*, and was too apt to become irritated if he met with a candidate who was not

acquainted with all the little anatomical details which Mr. HILTON had himself worked out.

As to Mr. HILTON'S successor, we trust that he will not be sought for in the Council. At present there are only two of the Examiners of the College who have not seats in the Council, and we think it desirable therefore that the next Examiner should be taken from outside. It is, however, not an easy matter to find men who are competent to examine in the subjects of Anatomy, Human and Comparative, of Physiology, Surgery, and Surgical Pathology. There are of course good anatomists and physiologists and good surgeons among the Fellows of the College, but a Fellow *au fait* in all subjects must be a *rara avis*. Yet until the Enabling Act of the College becomes law the Examiners who are appointed *must* examine in all the subjects. If this were not so, we believe that Sir JAMES PAGET, or Mr. ERICHSEN, or Mr. PRESCOTT HEWETT would not decline to be put in nomination as an Examiner in Surgery and Surgical Pathology. But all these gentlemen have at one time or another refused to accept an examinership in all the subjects. This fact may be taken as one of the strongest arguments in favour of the Conjoint Scheme. With the joint examination different Examiners will be appointed to the different subjects, so that there will be good anatomists to examine in Anatomy, and surgeons of rank and standing to examine in Surgery. It is desirable that more care should be taken in the election of the new Examiner than has been exercised at some previous elections. No one should be appointed who has not taught at least Anatomy and Surgery. A gentleman whose name has been mentioned as that of one eminently fitted to discharge the duties of Examiner at the College—Mr. JOHN WOOD—was for many years the Demonstrator of Anatomy at King's College, where he now occupies the Chair of Surgery. Mr. WOOD, moreover, has had large experience as an Examiner at the University of London, and is well known by many original contributions to surgery; he is therefore well fitted to discharge the duties of Examiner at the College, if he be so minded.

At the same meeting of the Council the draft of the Enabling Bill was discussed and accepted. The Bill will, therefore, at once be submitted to Parliament. If the Bill passes, the College of Surgeons will then be able to co-operate with the other examining bodies in the Conjoint Scheme, and we believe that, as soon as the Bill is passed, the Council of the College may, if they choose, appoint separate examiners in Anatomy and Surgery. The authorities of the Society of Apothecaries have not yet decided to accept the Conjoint Scheme, but are about "to take the matter into consideration."

THE following members of the profession attended the recent levée at St. James's Palace: — Drs. T. B. Christie, Wilson FOX, J. Lawrence Hamilton, Lush, Charles D. F. Phillips. On the same occasion the undermentioned were presented: — Surgeon-General Charles Archer; Surgeon-Major B. Burland, M.B., 19th Hussars; Surgeon-Major R. F. Hutchinson, M.D., Bengal Army; Surgeon-Major C. Mackinnon, Army Medical Department; Surgeon-Major R. J. W. J. Orton; Surgeon-Major Samuel Rowe, C.M.G.; Surgeon-General G. Saunders, Bengal Army; Surgeon-Major W. Stewart (M.D.), 2-21 R. N. B. Fusiliers.

Annotations.

"Ne quid nimis."

HOSPITALS FOR THE BETTER CLASSES.

THERE is no more remarkable feature in the progress of civilisation than the extension and improvement of hospital accommodation of all kinds. We have now not only general hospitals in every quarter, but hospitals for the special treatment of all imaginable diseases, in which the highest medical skill, the most modern and ingenious scientific appliances, and the most assiduous attention and care on the part of skilled nurses are devoted to the cure of the sick. It is not to be wondered at that those whose situation in life is above that of those who are usually considered fit objects of charity should at times compare their own lot when ill with that of their poorer neighbours, and draw from the contrast an unfavourable conclusion. There are, in fact, two classes for whom our present hospital accommodation is either inadequate or unsuitable. The one class consists of those members of the middle classes who, whilst well able to maintain their position by their own efforts, find, when they are sick, that they are unable to afford the necessary comforts of nursing in addition to medical attendance. This is especially the case when surgical operations are needed, and there is scarcely a medical man whose experience might not be appealed to for cases in which he has given up his proper fees to allow his patient to obtain the comforts essential to recovery. And in cases of operation his skill is often wasted for want of efficient nursing. Many such patients are able and willing to pay a certain sum towards their support, but from their circumstances and position they are unsuited for the wards of a general hospital. It is true that there is some recognition of this fact, and at some of the general and most of the special hospitals in London there is a certain amount of accommodation for such cases, but it is at present very insufficient and difficult to obtain. Another class of persons who might be benefited by hospital accommodation consists of those who are without home or family, and who, living in hotels or chambers, find themselves dependent on the care of landladies or hotelkeepers when accidentally overtaken by sickness, and those only who have experienced the discomforts of such a condition can tell what this means. Many persons, moreover, who come up to London for operations, or to be under the care of some eminent physician or surgeon, are compelled to put up with what comfort they can find in lodgings.

It is not to be wondered at, therefore, that, as we learn from a contemporary, it is proposed to start a Co-operative Hospital Company for ladies and gentlemen who, when ill, would be willing to pay for the advantage of hospital nursing. It is stated that a hospital, specially arranged so as to give to each patient two rooms with a separate entrance, and having a large permanent staff of medical men and nurses, is intended to be built, perhaps on the Thames Embankment. It is suggested moreover that members of the Association should have the privilege of getting advice at any time as out-patients without any extra charge, and thus "be saved throwing away many a guinea." It is intended, also, that the benefits of the hospital shall be limited to members and their nominees.

It is obvious that the project as it stands—that is, if its purposes and regulations are correctly represented—will not only fall short of the intended object, but will altogether exclude from its benefit by far the larger number of those who most need it. The limitation to members and their nominees will have two effects—that of excluding nearly all cases of acute illness in non-members, and also most of

the cases coming up to town for treatment; and it will also allow the wards to be taken up by cases of chronic, slight, or imaginary illness of members or their nominees. Nor do we think that the idea of establishing a great out-patient department for single gentlemen, who are to get their doctoring and, we suppose, medicine for little or nothing, is one likely to meet with much acceptance. This new phase of the provident system savours too much of an attempt to rob general practitioners at the expense of one or two individuals who may promote the scheme, and it would be sufficient to sink the hospital into one of the lowest class of special hospitals.

We do not, however, question the advisability of an increase of accommodation for the classes we have mentioned, either as a special department of already existing hospitals or as a separate institution. Such institutions are, we believe, already in existence in America and on the Continent—even in Spain, which we are accustomed to think so far behind us,—and they are found to be extremely useful and to work well. The experience of some special hospitals in London proves that the admission of paying patients may be made a source of considerable income and reputation. The enlargement or special adaptation of parts of existing general hospitals for the purpose would have great advantages in the organisation of the medical and nursing staff, and would save much outlay. Nor do we think that it need interfere with the proper objects of such institutions as charities—indeed, in many cases it might lead to an increase of donations. But, with all this, we do not doubt that a special institution might be needed. Its success, however, would greatly depend on its acceptance with medical men; and this, again, would be decided by the principles on which it rests and the mode in which they are carried out. The great difficulty, the keystone of the whole scheme, would be the selection of the medical staff; and we believe that a plan successfully adopted at some similar hospitals abroad and at some cottage hospitals at home might be most beneficially followed—that, namely, of allowing each patient to be attended by his or her own medical man. In addition, there might be a specially selected staff for cases of emergency, which should be large enough to allow of some selection. This plan would possess the greatest advantages in cases of private operations, which could be much more confidently undertaken than is now often possible at home or in lodgings. A competent and responsible medical officer or officers and a good staff of nurses would of course be indispensable, but would be readily obtainable. There should be a fixed scale of charges for maintenance, nursing, &c., which should be proportioned in some degree to the kind of accommodation required, and it would be advisable to adopt a lower scale of charges for those whose means are more limited. Some such plan, we believe, would meet with general approbation, and might probably be made a financial success, and we trust before long to see it carried into effect, freed from the objections which attach to the present scheme.

VIVISECTION.

THIS subject has been frequently and variously discussed, and our readers may naturally enough consider that it has been so threshed out in the process as to have left nothing material to be added to the arguments. The last number of the *Fortnightly* takes it up, however, from what may be termed the Positivist point of view. The article, by Dr. Congreve and Dr. J. H. Bridges, goes straight to the point, by declaring in the opening paragraph that the authors share in the feeling against vivisection, and wish to take part in the movement against it. That the grounds on which they have come to this conclusion are stated as succinctly as practicable may be inferred from the fact that they are compressed into a little more than two pages of letterpress. The practice is supported, say the authors, on the plea that it is essential to sound physiological teaching; and, secondly, that it is a necessary instrument of original research — that biology, as an experimental science, requires a large use of experiment. The first plea they reject as untenable. Competent teachers can give the student the knowledge he wants without the aid of vivisection, and it is wise of him as a student to accept their teaching, subject to revision at a later stage. As an instrument of original research, vivisection has unquestionably been useful in the past, and they think that, under careful restrictions, it may on rare occasions be needed in the future; but the results already attained in biology ought to render its employment more and more infrequent. On several grounds they are still more opposed to its employment at all as an instrument of teaching. As regards the limited use of vivisection, they think that man, who takes animal life so freely for his food, may occasionally inflict suffering for the purpose of clearing up his scientific knowledge—that in some cases, for example, where a definite and important problem is presented, it would be legitimate to exact that suffering, if it appeared, after due consideration, a probable way of solving it, but not as a means of chance discoveries. They probably attach a greater degree of importance than it deserves to the study of the phenomena of disease as a substitute for experiment. To those who would regard the pursuit of truth as the whole duty of man they reply, it is possible to attain to some knowledge by the sacrifice of higher considerations, and that it should be rejected because of the means by which it is to be attained. The article concludes with a reference to those views on sociology and morals which writers of this school regard as of sovereign importance; but into these we need not enter, especially as their bearing on the subject may seem less obvious and direct to us than to them.

THE INQUEST ON SIR CHARLES LYELL.

THE inquest held by Dr. Hardwicke on the body of Sir Charles Lyell has excited a good deal of public feeling, and been the subject of notice in Parliament. Mr. Cross was questioned as to the propriety and legality of the proceedings, and replied in that clear and plain-spoken way for which he is known. There can be little doubt that Dr. Hardwicke acted within his legal powers in holding an inquest. The Coroner has great discretionary powers, and is all but absolute in the use of them. And if he liked to be prying and curious in the search for information of all the incidents which happen in the course of long illnesses resulting in death, he would doubtless often discover circumstances which would give him a good show of reason for holding an inquiry. In Sir Charles Lyell's case there was an incident of this sort. He undoubtedly had a stumble on the staircase, which resulted, not in a heavy fall, but in his slipping down several stairs in a somewhat irregular manner. In this fall he incurred a bruise on the forehead and some injury to his thumb, which led to Sir James Paget being consulted. This accident occurred on the 9th of December. "To all appearance," in the language of the Home Secretary, "he recovered entirely in about a fortnight from the effects of it." Such an incident by itself, and followed shortly by death, would make it a duty of the coroner to hold an inquest. But here comes the peculiarity of this case. The fall occurred in the middle of an ordinary process of cerebral degeneration, characterised by vertigo and similar symptoms, for which Dr. Andrew Clark had been in attendance since the autumn. The course of this sad failure of a brain that has done so much for the world was altogether

such as might have been expected, apart from the accident of December the 9th. The kind of winter we have had is known to be very injurious to such cases. Sir Charles seemed to recover from the effects of the fall, and even to get better, but after Christmas he got worse. Vertigo increased, the brain got duller, he became semi-conscious, and he died at the end of February, between two and three months after the accident, and a much longer time after the first indication of disease for which Dr. Andrew Clark had been consulted.

These are the circumstances in which Dr. Hardwicke, notwithstanding a statement of the cause of death from Dr. Andrew Clark, and a strong intimation from that very competent gentleman that an inquest was unnecessary, if not unjustifiable, thought fit to hold an inquiry, even after the body had been enclosed in a lead and oak coffin. We often have to complain that inquests are not held when they should be held. Here we confess that, in our opinion, Dr. Hardwicke failed in that discretion which is, or ought to be, a principal quality in a coroner. A large number of cases come before a coroner in which the right use of this quality saves an inquest with all the attendant trouble to friends already sufficiently distressed. The present was eminently such a case. It is bad enough that so great a brain should have lost its steadiness, and so involved its owner in a fall. But that this intelligible accident in the course of a too ordinary but painful illness should have been made the ground of an inquest is deeply to be regretted. A lawyer, ignorant of cerebral disease, could not have done worse or made a greater mistake; and a few more such errors would destroy the strong public faith in medical coroners. The remark of Dr. Hardwicke about the rich and the poor man is irrelevant, and, we must add, in very bad taste. In the case of a poor man, with facts so clear, the inquest would have been equally ill-judged. Having said this much, we hope that this incident will now be dismissed from public notice. Dr. Hardwicke has suffered severely from public criticism. He has yet, we trust, a long career before him in which to show that discretion which is conspicuous by its absence in this unfortunate instance.

THE ARMY MEDICAL DEPARTMENT.

WE may take the opportunity of a comparative lull in the loud expressions of discontent on the part of medical officers —anticipatory probably of the War Minister's declaration of his intentions in regard to their service—to reiterate what, in our opinion, are some of the most essential requirements. First and foremost, we hold that you cannot have a contented or efficient service where there is relatively so little prospect of promotion as in the Army Medical Department. As things are at present the vast majority of medical officers can never hope to do more than quit the service as surgeon-majors at the age of fifty-five years, unless they happen to have earned a title to retire a little earlier on the score of ill-health. One of our daily contemporaries, however unjust its observations might have been in some respects, was indubitably right when it declared that, let an army medical officer be ever so able and industrious, he will not add one penny to his income, or lay up a five-pound note for his children. And it must be remembered that it is the officers of the executive ranks, as they are termed, who really perform the main portion of the work that has to be done, and it is on their professional skill that the army would have to fall back in case of war. It would be gross injustice to deny that many of the younger men are conscious of possessing an amount of energy and ability that would have commanded a far larger measure of success in civil life than they ever hope to attain in the army. If we turn to the upper ranks what do we find? That a medical officer having once reached the official haven, naturally enough takes every care to enjoy its advantages as long as he is able, and when he is compelled to retire by virtue of his age the chances are that, in addition to the increased emoluments he possessed whilst serving, he absorbs one of the good-service pensions. A number of men were promoted, whilst comparatively young, to the administrative ranks, and, as a necessary consequence, as they need not retire until sixty-five years of age, promotion was blocked. We would not for a moment imply that the promotion of these officers was not fully justified by their services and abilities, for that is not the question; indeed, we are quite opposed to a purely seniority system of promotion—in other words, a dead-level system. But the mere fact that it fell to the lot of one medical officer twice to fill the most lucrative post in the medical service, whilst a number of energetic and able men were "nowhere," and without hope of altering their position in the official life-race, speaks for itself. A very little knowledge of human nature suffices to demonstrate that if you require zeal, efficiency, and contentment, some prospect of advancement and hope of reward must be held out. The stream of promotion must be maintained somehow, and this can only be effected by a movement of the front rank. Setting aside what is right and just to the medical officers themselves, we hold that it is best for the nation to retain its servants on the active list only so long as they are physically efficient for their work, and we do not believe in the physical efficiency of the ordinary run of men over sixty years of age for tropical or field service. Now that medical officers of the naval service are compelled to retire at sixty, especially considering that the time passed on half-pay is one of the grievances of that service, we cannot see why the same measure should not be meted out to the medical officers of the army. A good deal has been made of the late change of organisation in the army medical service, but we do not believe that if a well-devised scheme had been properly applied it would have been productive of anything but good to the service, and we have no doubt that it was because the measure was neither one thing nor the other, and that its introduction was seized upon to curtail the privileges of medical officers, that it became so distasteful. On this subject we shall have occasion, however, to speak more hereafter. Meanwhile there are several directions in which the War Minister might redress some of the most prominent grievances, one of which is by making an outlet for retirement in two places—at the surgeon-major's rank for a limited number of officers, and at the top by introducing a compulsory retirement at sixty years of age, in imitation of what has already been conceded to the naval medical service.

OVERWORK AND INSOMNIA.

ALTERNATION with rest, rest absolute in degree as well as sufficient in amount, is the only condition on which work can be safely and effectively done. The capacity for work will be found to be, on the whole, proportioned to the capacity for rest, to the completeness with which at intervals the mind can be released from the effort and anxiety of an absorbing occupation, disconnected from the train of ideas which have been occupying it, and given up to recreation or to repose. Sleep is the great renewer of energy, and the physical necessity for sleep is absolute. It is only during sleep that the nutritive changes in the brain can be effectively accomplished. The capacity for sound sleep, so essential for long-continued labour, is, in adults at any rate, very unequal, being retained by some to a much greater extent than by others of a different constitution. But it may be lost by those who possess it in the highest degree. Exciting occupation may leave the brain less and

less capable of repose. Or the capacity may be lost by neglect. If every curse is a blessing in disguise, there are some blessings which are often treated as though they were hidden curses, and sleep is one of them. The temptation to curtail the hours of sleep is almost irresistible to the hard worker, whose hours are, at the longest, wholly incommensurate with the work he has to do; and the impunity with which, for a time, the hours of sleep can be thus shortened strengthens the temptation. Sooner or later retribution comes. The wearied brain becomes less and less its own master. Trains of thought can no longer be changed or banished at will. The sleep, once so unwelcome, is now sought in vain. Brain power suffers; the organs of vegetative life cease to receive their due innervation, and the disorder of their functions reacts on the central nervous system, and still further disturbs the normal balance of action.

The effects of excessive muscular exertion last for days. The over-used muscles are tired, tender, weak; their elements exhausted by their action, and charged with its products. What must be the effect on the delicate nervous elements of the cerebral hemispheres of such exhaustion, of such saturation with the products of action? A state of irritation results, in which excitement is kept up by trifling causes; rest becomes less and less complete, and its absence intensifies the morbid state. From the defective function of the digestive and other organs the nourishment supplied to the tissues is insufficient, or imperfectly elaborated, and the blood is loaded with the results of incomplete chemical changes—compounds which further irritate the brain, and lead to disturbances in the excretory and other organs.

These remarks are suggested at the present time by the reflection that one of the most energetic and able men in Europe is thus thrown out of active life by overwork. The greatest strength can but retard the day when anxious labour, prolonged through the hours which should be those of rest, strains the physical powers too far, and the constitution of the strongest gives way at last under the high pressure of a statesman's life. Against such high pressure only the unvarying habit of regular and sufficient rest can preserve in health and energy those who work with the brain. The long-continued and unimpaired power of one of our own prime ministers is well known to have been in great measure due to his habit of spending one-third of his time in sleep, a habit with which he would allow nothing to interfere. Who can say how much would be gained in length of life and useful energy could our professional classes follow his example; how many saddening instances of premature failure would be avoided which too often removes men from active life just when their powers and influence have acquired effective development, and the real value of their lives is becoming felt.

A VISIBLE STELLATION OF THE CRYSTALLINE LENS.

IN the part of the Ophthalmic Hospital Reports recently issued, Mr. Tweedy, of the Royal London Ophthalmic Hospital, has given a description of a peculiar striation or stellation of the human crystalline lens visible in the living eye, which, notwithstanding the close examination to which this body has been subjected in health and disease for many years past, has hitherto escaped observation. In order to see it the patient must be seated with a lamp a little above and in front of him, the light of which must be concentrated with a lens, as in ordinary oblique illumination. The observer must then look obliquely at the lens from the side opposite to that on which the light falls. Portions of the anterior stella of the lens will thus come into view; and if the head of the observer be moved a little up or down, all the rays, which vary in number from six to eight, may be distinctly seen. Most of the rays undergo dichotomous division as they pass towards the periphery. In the normal eye the lines are dark and gently undulating, and Mr. Tweedy regards them as "negative structures, mere fissures or seams formed by the apposition of the ends of the fibres." He points out the bearing of these rays on cataract, and shows that the earliest perceptible cataractous changes in the cortical layers of the lens, especially of old people, appear in the ends of the fibres adjoining the above-mentioned rays. Sooner or later, however, the retrogressive changes extend, so that the line of the ray ultimately becomes obliterated by the disruption of the lens-tubules and destruction of their contour. Mr. Tweedy then proceeds to give the mode of subjective examination of the rays, and their influence on vision.

THE BIRMINGHAM MEDICAL INSTITUTE.

IN accordance with the maxim that stands at the head of our correspondence columns, we published last week several letters approving and defending the conduct of the Election Committee of the Birmingham Medical Institute in admitting as members certain professed homœopaths. These communications were published without any note or comment, as we were desirous that what was urged in behalf of the extraordinary innovation should have its full weight and influence. But the silence must by no means be regarded as an acquiescence on our part in the proceedings of the Committee. Our opinion of homœopathy has not changed, and we distinctly maintain that it is morally impossible for the practitioners of rational medicine to hold any professional relations with professed homœopaths. The question in the present case is not a social one, as some have attempted to make it. It is not even a question of medical science, but purely a matter of professional ethics. The social position, the acknowledged integrity and uprightness of the gentlemen whose admission as members to the Institute has caused the present discussion, must not allow us to lose sight of the real question at issue. Our position is that homœopathy is a system which has no scientific basis, that the theory of infinitesimal doses is an insult to common sense, and that the doctrine of *similia similibus curantur* has no foundation in fact. For these reasons homœopathy has been denounced by the examinational bodies, the medical societies, and the various corporations and institutions for the upholding of the honour and dignity of the profession. Professed and declared homœopaths have never been permitted to receive qualifications to practise from the examining bodies of this country, and the medical societies have always refused to admit to membership any professed homœopaths. It has, moreover, been an acknowledged principle of professional ethics to refuse to meet homœopaths in consultation, or to have any professional dealings with them. This was a matter that was strongly insisted upon by Hahnemann himself, who denounced what he termed allopathy as a fraud, and fit to be practised only by those who are "insensible to the stings of conscience." He further alleged that the practice of homœopathy "must be *exclusive*," and that "all backward straying to the pernicious practice of the old school (whose opposite it is, as day is to night) is totally impossible." But if homœopaths cannot be met in consultation, as one of our correspondents last week acknowledged, it is surely a refinement of casuistry to say that they may be associated with in a medical institute, which is to all intents and purposes a professional association, intended for the advancement of medical science by books and meetings. At all events, such a distinction is

too fine for us, and too fine, we imagine, for simple unsophisticated common sense generally.

No one can regret more sincerely than we do that this unfortunate *contretemps* should have occurred, but the unpleasant and ungracious task of opposing it cannot be shirked. The public spirit of Mr. Pemberton is deserving of approval and encouragement. We trust therefore that in his attempts to preserve the reputation of the profession he will receive the fullest support and sympathy. It is to be hoped that the public meeting which we understand is soon to be convened will express its strong disapproval of the action of the Committee who took upon themselves to settle this point. The profession in a large and wealthy district like Birmingham will have no difficulty in maintaining a medical institute without the aid of the £5000 offered by the homœopaths.

OUR FLOATING POPULATION.

MR. W. E. PRICE, member for Tewkesbury, very properly revived this important subject in the House last week by asking the Home Secretary if the lamentable condition of the floating population on our canals had been the subject of official attention in connexion with the proposed extension of Factory and Workshop Acts to certain classes at present exempt from their operation. The reply of Mr. Cross was so far satisfactory in that an investigation was indicated; and it appears to us, having regard to facts that have recently transpired, that an inquiry is eminently necessary. There are more than 2000 miles of canals in Great Britain, but, although we have made numerous inquiries, it appears impossible to arrive at an accurate estimate of the population living on them, or even of the total number of barges employed. A great many of these barges find their way into the Thames by the mouth of the Grand Junction Canal at Brentford, and the Regent's Canal at Limehouse Basin. The port sanitary officers of the Corporation might be requested to furnish particulars of this migratory people, and, as it appears to us, the particulars about, as we trust, to be sought for by the Home Secretary would be best obtained by the appointment of a Commission, consisting of three or four persons practically acquainted with canals, a medical officer of health being associated with them who has had some experience of floating habitations of the smaller class and their inmates.

THE TRIAL OF A MIDWIFE FOR MANSLAUGHTER.

AT the Warwick Assizes, on Feb. 27th, Elizabeth Ingram was placed on her trial for having by gross negligence caused the death of Catherine Johnson by communicating to her puerperal fever. It appears that out of seven cases attended by Ingram during the month of December, five were attacked by puerperal fever, and of these four died. Dr. John Brown was called in to see one of the fatal cases, pronounced it one of puerperal fever, and for that reason told the midwife Ingram that she ought not to attend any cases for two months from that date. On Dec. 18th she was again warned by the coroner that she should abstain from attendance on patients for two months. On that day she saw, or was seen by, Mr. Middleship, a practitioner in Coventry, told him her troubles, and he offered to attend her cases for her, in order to prevent the spread of the fever. At the same time he told her that she might be in the room at the time of the delivery, provided she took care to avoid actual contact. On December the 24th Ingram was called to Catherine Johnson, the deceased, with whose death she stood charged. She sent for Mr. Middleship about two o'clock. He saw the deceased, and said that he would probably be required about six o'clock. Ingram remained with the deceased, and about six o'clock sent the husband for Mr. Middleship, but unfortunately he was unable to go because he was called to another case. The husband returned and told Ingram that the doctor said she had better go on with the case. Mr. Middleship, however, denied having said anything of the kind. Ingram then delivered the patient. On the following day she was attacked with puerperal fever, and on January 8th died. Having heard the history, of which the above is an outline, Mr. Commissioner Maule, before whom the case was tried, addressing the counsel for the prosecution, said: "Can you support this charge? Here is this woman, who is an ignorant person, and cannot know of herself whether the form of complaint she has been dealing with is contagious or not, who receives a warning from the police and the coroner, who communicates with a doctor, and states the reason why she has been warned, and is told she may be present in the room. Then, when labour comes on, the doctor leaves her to herself, and the husband delivers a message to her to the effect that the doctor, who knows all the circumstances of the case, has given her authority to act in the matter." The counsel for the prosecution admitted that the charge could not be substantiated, and the prisoner was acquitted.

This case is only an additional proof of what has already been pointed out in our columns, the pressing necessity of placing unqualified practitioners of midwifery under supervision and control. The woman Ingram had received two warnings before her committal by the coroner—one from an established practitioner in the town, and one from the coroner himself, both of which she practically disregarded. Mr. Middleship will probably have learnt a lesson from his experience in this case which will be not easily forgotten by him. The conduct of the coroner is deserving of the greatest praise, for by his prompt and energetic action an end was put to an outbreak of puerperal fever which had already proved to be of a very fatal character. The words addressed by Mr. Commissioner Maule to the counsel for the prosecution are very unfortunate, for it is to be hoped that, even in the present state of the law in regard to the practice of medicine, ignorance in unqualified practitioners is not to be accounted an excuse for or a protection against the consequences of their acts.

MISS WOOD AND THE SHAKERS.

ONE of the hardships which necessarily attends journalism in these days of haste and high pressure is that writers have to draw their inferences without delay from the statement of facts before them. Such statements are sometimes incorrect, and generally incomplete, and, with every desire to be impartial, the inferences may be unfair and the conclusions may often be precipitate. So far from some of Miss Wood's relatives conspiring with the doctors to take advantage of her eccentricities to get her confined in a madhouse on the ground of her being insane, so as to secure any of her remaining property, it seems probable that nothing remains to be secured by anybody. At any rate, it is premature to settle this question of her sanity or insanity on the statement of facts that have been published. We do not pretend to be able to pronounce any opinion one way or the other, whatever we may surmise; but we certainly think it very unfair to the medical men concerned to prejudge the matter. They had no doubt good grounds, or what seemed to them good grounds, for their opinion, which they will be prepared to state when required. In the meantime it would appear, from a communication by Mr. W. M. Tilson, that Miss Wood was pronounced insane years ago, and had been a patient in a lunatic asylum for a considerable time. The question will, however, shortly be reopened in due form by Her Majesty's Commissioners in Lunacy.

THE UNIVERSITY OF LONDON AND STATE MEDICINE.

AT a meeting of the Senate of the University of London, held on the 10th ult., the propositions in the Report of the Committee on Examinations in Medicine respecting the examination in State Medicine were accepted. The principal points of the report will be found in our issue of Jan. 9th, p. 64. Any Bachelor of Medicine will be admissible to the examination in the subjects relating to public health after an interval of one year from his passing the second M.B. Examination. Judging from the list of subjects, the Senate seems determined to maintain the high examinational standard of the University. It is certain, therefore, that those who pass this examination will be thoroughly acquainted with all the theoretical and practical departments of State Medicine.

KING'S COLLEGE HOSPITAL.

THE proceedings at the annual meeting of the governors of King's College Hospital, held last week, were altogether harmonious and satisfactory. It appears that the discord which existed last year has entirely passed away, the changes (as indicated by us at the time) having been effected without at all impairing the efficiency of the working arrangements. As Lord Hatherley remarked, "there were some small things at the bottom of the inquiry which, although small in themselves, produced much mischief." And we trust that the authorities of St. John's House fully appreciate the vote of thanks tendered to them by the governors for their past services.

One of the wards still remains closed for want of funds. The receipts for the past year amounted to £11,975, including £1172 from the Hospital Sunday, and £150 from the Hospital Saturday, collections. The expenses have diminished considerably during the past half-year, and amounted for the year 1874 to a total of £12,177.

A SELF-SUPPORTING HOSPITAL FOR BRIGHTON.

A MEETING was held at the Town Hall, Brighton, on the 24th of February, to discuss the propriety of establishing a provident and self-supporting hospital in Brighton. There was considerable difference of opinion as to the feasibility of such a course, and as to the amount of abuse of the existing hospital in Brighton, some maintaining that 10 per cent. of the patients relieved could pay for medical attendance, others that there was practically no abuse. A statement of the house-surgeon at the annual meeting of the governors of the hospital was quoted to the effect that during the five or six years in which he acted there he did not believe there had been six cases of abuse of medical charity at the hospital. The meeting appointed a committee to consider the matter. The same question is under the consideration of the governors of the Sussex County Hospital. We shall recur to the subject next week.

POLLUTION OF THE REGENT'S CANAL.

A DEPUTATION waited on Mr. Sclater-Booth last Wednesday to make certain representations with regard to the present state of the Regent's Canal. We have already alluded to the subject, and commented on the disgraceful condition of this open drain. The deputation evidently sought to throw the chief blame on the Zoological Society's Gardens, and endeavoured to obtain power to restrain them from pouring their waste and surface water into the canal. In our report on the subject some weeks since, we pointed out how slight the pollution of the canal could be from this source, as all solid excretory matters were removed by a contractor, whilst the vast volume of tank water returned to the canal was a decided benefit. The true source of pollution comes from the innumerable drains that open into it from other quarters, and its being made a receptacle for all kinds of filth thrown without restraint from the banks.

DIPHTHERIA AT WOOLWICH.

A FRESH outbreak of diphtheria occurred last week in the huts situate on Woolwich Common, and two cases are stated to have terminated fatally. We learn that nothing has been done towards the reconstruction of these huts, and the fact that another outbreak has occurred clearly demonstrates that we were right in expressing an opinion that nothing short of their removal would free the spot from disease. Surely it is anomalous that one department of Government should allow the continuance of such a grave social and sanitary evil, whilst another department is introducing a Bill to improve the dwellings of the labouring classes. If more deaths occur, the War Office will have incurred a grave responsibility, and have laid themselves open to be questioned in Parliament on the subject. The huts should be closed without delay.

THE PROFESSORSHIP OF SURGERY IN THE UNIVERSITY OF DUBLIN.

THIS appointment, vacant by the decease of the late Mr. Adams will, it is stated, be filled up this week. The Academic Council have the power of selection, and, from the names of the gentlemen rumoured as being candidates, a certain amount of difficulty may be expected in deciding who shall obtain the coveted post. It is thought that Mr. Porter will be successful, but in a matter of this kind it is, of course, impossible to do more than offer a surmise.

AN ANTI-VACCINATOR ON VACCINATION.

AT a recent meeting to consider the question of Compulsory Vaccination in Jersey, which ended unfortunately in an adverse vote, all the argument was on one side. One of the most effective was included in a speech by the most prominent of the anti-vaccinators. He said (1) That he had never been vaccinated himself; the upshot of which, as stated by himself, is that he has had small-pox three several times. (2) That, however, he had had all his children vaccinated; the result of which, from his own account, is that not one of them had ever had the small-pox.

CONVICTION OF A SURGEON FOR MANSLAUGHTER.

WE learn that Mr. Edward Peacock, the surgeon who was charged with manslaughter in causing the death of a woman whom he had attended during her confinement by cutting off a portion of the small intestine, was found guilty at the Warwick Assizes on Wednesday, and sentenced to six months' imprisonment, but without hard labour. The case has been already referred to in our columns, and it is of so much importance that we shall recur to it next week.

NAVY ESTIMATES.

THE Navy Estimates show a comparative increase on the vote for medical establishments at home and abroad, amounting to £943; for medicines and medical stores amounting to £2585. The estimates indicate a total increase for the effective service of £344,560, and a decrease as to the scientific and other branches of £42,757, the total number of officers and seamen for whom votes are asked being in all 60,000—precisely the same as last year.

ST. PETERSBURG.

RECENT advices from this city indicate that its sanitary condition is very bad indeed. There are said to be more than 10,000 cases of typhus and enteric fever under treatment, or about one in seventy of the entire population, and these numbers are exclusive of many treated in private houses. A large proportion of the poorer inhabitants live in underground cellars, the filthy state of which is said to be appalling.

As bearing on the Home Secretary's Bill for the Improvement of the Dwellings of the Working Classes, we may state that the Glasgow authorities lately furnished the Home Office with a report of the condition of the town in which we find, among other information, that furnished, airy lodging-houses, with large day-rooms, lavatories, &c., have been provided for the lowest class of the population—the waifs and strays. Each inmate has a separate clean bed at the charge (including use of cooking range and utensils) of 3½*d.* a night. These institutions are so managed as to be self-supporting. Since their erection several years ago not a single case of fever or epidemic disease has occurred within their walls. It is pointed out that stringent rules, rigidly enforced, are necessary to secure the satisfactory working of such homes.

MR. CHARLES ASHENDEN, medical officer of health for Hastings, in a report lately presented to the sanitary authority, states that the town "has been free from any epidemic, and although the number of deaths from zymotic diseases is very large, whooping-cough and croup caused the deaths of half that number." This is not so satisfactory a character of a popular watering-place as we would like to see. Fifty-four samples of water, chiefly from private wells, were analysed during the year, and of these twenty were found to be impure, many, indeed, being little better than sewage matter. Mr. Ashenden urges the construction of a special hospital for infectious diseases in the borough.

A RECENT number of our contemporary the *Globe* contained a sketch entitled "The Fashionable Physician," drawn by a discerning but not unkindly hand. The writer evidently has had some insight into the lights and shades of quasi-fashionable medical practice. There are few writers of fiction, from Scott, Dickens, Thackeray, and Lever, down to a host of the smaller fry, who have not endeavoured to depict the fashionable doctor, and in most instances the creation has been an unreal and impossible one. The portrait drawn by our contemporary has its prototype in Dickens's "Mr. Jobling."

LAST week there were registered 1854 deaths in the metropolis, including 2 from small-pox, 15 from measles, 38 from scarlet fever, 10 from diphtheria, 71 from whooping-cough, 24 from different forms of fever, 16 from diarrhœa, and 576 referred to diseases of the respiratory organs—the mortality from the latter being considerably in excess of the weekly average. Of the 24 cases of fever, 20 were certified as typhoid. This disease is reported to be prevalent in High-street, Ilford. Of the large Continental cities, Rotterdam and Naples are, by the latest returns, the most unhealthy.

A JUDGMENT given on an appeal to the House of Lords by the Governors of St. Thomas's Hospital in an action for rates brought by the churchwardens and overseers of St. Mary's, Lambeth, determines the ratability of such institutions. Their lordships affirmed the decision of the Court of Exchequer Chamber, which was grounded on a similar action against the University of Edinburgh.

THE medical officer of health for Bradford, Yorkshire, in his report for the week ending February 20th, refers to the excessive mortality of the borough, which was equal to an annual death-rate of 31 per 1000. The excess was more especially marked in Bowling and Manningham sub-districts, in which the deaths were at the rate of 37·6 and 40·4 respectively. Of the 100 deaths recorded 15 were returned as due to diseases of the zymotic class. A very sad feature of the vital statistics of Bradford, though by no means peculiar to that place, is the great mortality amongst infants which prevails.

ON Wednesday last the second reading of Mr. Cowper-Temple's Bill to allow the Universities of Scotland to admit women to degrees was negatived by a majority of 43. The object of this Bill was practically to reverse the recent decision of the Scotch Court of Session that the University Court of Scotland had no power to admit women to University degrees. It will be remembered that, as a result of that decision, the ladies who had entered conditionally as medical students at Edinburgh were unable to proceed to graduation.

IN accordance with a suggestion of Dr. Parsons, medical officer of health for Selby, the Health Committee of the town have arranged to meet on an early day at Carlton to make a thorough inspection of the village, with the view of deciding upon a system of sewerage for its benefit. This step has been taken in consequence of the bad sanitary condition of the place, as indicated in the report of Dr. Parsons, and confirmed by the high death-rate which has prevailed for some time past.

AT a general meeting of the Middlesex magistrates, held a few days ago, Captain Morley reassumed his *rôle* of economiser of coroners' fees. He expressed his regret that, although they had a new coroner for the central district of the county, the great disbursements for fees which he fought against still went on, for while Dr. Hardwicke had held fifty-nine fewer inquests than Mr. Humphreys, his fees had been £20 more.

THE total amount of collections raised in Liverpool on Hospital Sunday, January 10th, and on Hospital Saturday, January 16th, in aid of the charities of the town, amounted to £9300, being £1500 less than on the previous year. The deficiency, however, is attributed to other causes than a decreased interest in the prosperity of the various medical institutions. The Royal Infirmary receives the largest award.

WE have inspected a most excellent portrait of the late Dr. Anstie, which has been subscribed for by several of his friends, and is to be placed in the board-room of the Westminster Hospital. It is a photographic portrait, enlarged to nearly life size, which has been executed in a most masterly manner by Messrs. Barraud and Jerrard, of Gloucester-place, Portman-square.

THE Sale of Food and Drugs Bill, now before Parliament, meets with disapproval in all quarters. The Westminster Board of Works, among others, object to several of the clauses, and have decided to send a deputation to Mr. Sclater-Booth to point out what they consider defects in the Bill, and to suggest alterations.

THE *Army and Navy Gazette* states that Mr. Ward Hunt is about to take into consideration the claims of Deputy Inspector-General of Hospitals and Fleets Dr. A. E. Makay for promotion to a higher rank.

We regret to announce the death of Dr. Alexander Halley, of Harley-street. The sad event occurred somewhat unexpectedly. Dr. Halley was consulting physician to the St. Marylebone General Dispensary.

H.R.H. PRINCE LEOPOLD has presented, through Sir William Jenner, a sum of £50 to the funds of University College Hospital.

THE SANITARY CONDITION OF OUR UNIVERSITIES.

We continue to receive extremely unsatisfactory reports from Oxford and Cambridge as to the sanitary condition of the university and town at both places.

From Cambridge the rumours are most alarming, the mortality for some weeks past has been excessive, acute diseases have been unduly prevalent, and a general feeling of apprehension exists among the inhabitants with respect to the nature of the prevailing illness and to the real extent of the danger. The inhabitants feel that no steps have been taken to improve the sanitary condition of the town since the outbreak of typhoid fever last year, and they dread lest any serious catastrophe may be now awaiting them. We feel that, ere long, the sanitary condition of our universities must be the subject of a Government inquiry, and then steps may be taken to render them safe and secure places of residence for the undergraduates committed to their care. In the meantime we propose to contrast the sanitary arrangements and deficiencies of each university, to point out the various sources of danger, and the best means by which they may be overcome. It is the opinion of many persons that the sites of the two universities are unfortunate, and that no improvements can ever render them as healthy as they should be. This, we think, is a mistake. Oxford, it is true, lies in a hollow bed, surrounded by streams, liable to inundation, and with a water-logged soil; but it is quite possible, by removing the mill-heads, which now hold back the numerous streams, by cutting a few large dykes to carry off the flood-waters, and by improved drainage, to render the soil as dry as that of many other large towns. Already the new drainage works, though still incomplete, have effected a vast improvement in this respect, as is shown by the failure of many of the wells in the upper part of the town. Cambridge, on the other hand, presents many natural advantages: the soil is naturally dry, consisting of light sandy gravel resting on gault, the sluggish Cam rarely overflows its banks, and the town contains many open spaces which allow of free circulation of air. The chief difficulty at Cambridge lies in not being able to get any fall for its drainage; the difficulty in this respect we are assured is exaggerated, and could be overcome by simple expedients. Cambridge is supplied with excellent drinking-water, drawn from Cherry Hinton, about five miles from the town; at present there is no fear of its becoming contaminated at its source, but it should be jealously guarded from the chance of being so in the future. At Oxford the water-supply is abominable, and simply a disgrace to a civilised community; it is horrible to think that men should be compelled to drink *unfiltered* the diluted sewage of Hinksey.

Oxford is now completing the extensive drainage system entered upon two years ago, and we believe that it will materially improve the health of the inhabitants. At Cambridge there is hardly any drainage at all, and the sanitary authority seems to have determined that there shall be none; the drains are nothing more than "elongated cesspools"; they are old, made pervious by innumerable rat-holes, and unventilated, consequently the sewage and sewer gases escape by the aforesaid holes, and, percolating through the porous soil, find an entrance into the basements of the houses and into the wells. Again, owing to the small fall, the contents deposit in the interior, and diminish the capacity. So great is the difficulty of removing the solid excreta that the inhabitants are in many cases obliged to employ small cesspools to receive them, lest if they were returned direct to the sewer, it should become blocked. A builder of considerable experience in the town informed us that he was surprised that some of the drains had not burst, so great was the pressure. A new system of drainage is imperatively required at Cambridge, and if the old sewers were used for the purpose of carrying off the storm water, Captain Liernur's method of pneumatic excreta-removal could be carried out at less cost, perhaps, than any scheme yet proposed. Before, however, any improvements can be effected in this respect, the sanitary authority will have to be reconstituted. At present, unlike the Oxford board, they appear utterly indifferent to the interests of the town, and receive any suggestions of improvement with a spirit of sullen resentment.

Our opinion has been asked with respect to the sanitary arrangements of the colleges themselves. With these we have little fault to find. We should like, however, to see all overflow, waste, and rain-water pipes disconnected from the sewers, and we think the college authorities would be wise, especially at Cambridge, if they entirely disconnected themselves from the town sewers, by introducing the system of earth-closets. At Oxford the latrines introduced by some of the colleges are very unpleasant, and ought to be removed. A daily contemporary has alluded to the mouldering roofs and decayed walls of the colleges as a proof that they are unfit sanitary residences. This, however, is only a picturesque fiction; the structural maintenance of the college buildings is excellent, and leaves nothing to be desired. There is nothing, then, in the condition of Oxford or Cambridge, in our opinion, that cannot be remedied. At Oxford the water-supply must at once be freed from contamination by draining the suburb of Hinksey, and adequately filtering the water from the reservoir before distribution, a work which we believe, on the recommendations of our Sanitary Commissioners, has already been initiated. Means also should be taken to carry off the flood-waters which at present surround the city during the winter and spring months by a system of dykes, and the drainage system rapidly completed. At Cambridge the work required, though of paramount importance, is not so extensive, and we believe the town could be made one of the most healthy in the kingdom if the old drains were abolished, or used as we have suggested above, and a new system of sewage-removal introduced.

Correspondence.

"Audi alteram partem."

CROUP AND DIPHTHERIA.

To the Editor of THE LANCET.

SIR,—I have read with much interest the opinions of Sir W. Jenner and Dr. George Johnson on the identity of croup and diphtheria, and should have satisfied myself with adding their views to the information which I already possess on the subject, had not Dr. Moxon suggested that a very difficult question was about to be settled by authority alone. In my lectures I have always considered it right to lay before students the arguments *pro* and *con.*, especially mentioning the name of Dr. Johnson as the advocate of the identity of the two complaints; to the weight of his opinion must now be added that of Sir W. Jenner. I have myself contended that the identity is far from proved, as the arguments in favour of it appear to rest entirely on the anatomical resemblances between a croupous and diphtheritic inflammation. It is true that in a neighbourhood where diphtheria is rife, an affection of the air-passages may in many cases be the only feature of the disease; in a word, that membranous croup may have a purely diphtheritic origin. From this undoubted fact the above-named gentlemen argue that all membranous inflammations of the air-passages are of a diphtheritic nature—that is, that they arise from an external

or specific cause having the character of a poison, and that the aerial mucous membrane is not subject, as we have hitherto supposed, to an idiopathic or intrinsic croupous inflammation.

My own opinion is that an anatomical condition is not sufficient in many cases to distinguish or carry with it the pathological nature of the affection which has induced it, and thus my interest in the question is not confined to the point at issue, but involves a much larger one. I was in the habit of teaching for many years, in the post-mortem room, that morbid conditions cannot, in our present state of knowledge, indicate the causes of the malady which induced death; hence it was long before I succeeded in removing the scepticism as to the existence of internal syphilitic disease, because I was unable to show any anatomical peculiarities in the various gummata, the evidence of syphilis being purely clinical. In various other ways the doctrine might be illustrated, as, for example, when a pneumonia is the result of blood-poisoning and at the same time the immediate effect of a stab in the lung of a previously healthy person. In such a case the hepatised organ can do no more than show the immediate cause of death. As Dr. Moxon rightly says, I have shown several cases of membranous inflammation of the larynx following scalded throat, and I well remember the case of a boy under Mr. Cooper Forster who had tracheotomy performed in consequence of a bean having passed into the air-passages, and in whose larynx a distinct membrane was formed after three days.

I took the trouble some years ago to look up the literature of the subject, and I found that cases of throat disease occurred in this country which were probably of a diphtheritic nature, but I could not find that in croup (and some of these must have been membranous) the disease was considered contagious, nor did I read of that remarkable sudden depression of the heart's action which we now recognise as often occurring in true diphtheritic cases. I do not deny that membranous croup is not diphtheria, but at present I consider the evidence of it is wanting. I attach little importance to the anatomical changes being identical, but would rest my proof on clinical observation by closely watching cases of croup with reference to their surroundings—in fact, by looking for their cause. I apprehend that similar reasons would be used for distinguishing two diseases as in separating species of animals or plants—not outside resemblances or peculiarities, but facts to show whether the one animal or plant could or could not produce its like.

I should say that our knowledge at the present day seems to show that a membranous inflammation of the air-passages may be caused by injury, by cold as an idiopathic affection, and by the diphtheritic poison. I cannot, therefore, assent to the doctrine that an idiopathic membranous inflammation of the air-passages has no existence, but that the appearance is always due to a specific external agency. This is really the statement of the two distinguished physicians, and, as pathologists and clinical observers, their opinion is worthy of all respect; but I think that most of us will require more evidence before we give it our unhesitating sanction.

I am, Sir, your obedient servant,

Grosvenor-street, February 27th, 1875. SAMUEL WILKS.

To the Editor of THE LANCET.

SIR,—I know not what you and Sir William Jenner may say to Dr. Moxon, but, with your permission, I will make a brief reply to his letter.

As I understand Dr. Moxon, he has failed to find in the post-mortem theatre any satisfactory distinction between "true croup" and diphtheria. So far we all agree. He believes "the relation between membranous croup and diphtheria to be exactly the same as that of fatal English cholera to Asiatic cholera." The light thrown upon the subject by this comparison is more bewildering than brilliant.

He doubts whether membranous croup is always diphtheritic, because he has seen membranes in the trachea of two children who had swallowed scalding water. I, too, have seen a membrane in the trachea of two adults who had swallowed a mineral acid—one nitric, the other hydrochloric, acid. And I have seen white patches on inflamed tonsils after cauterisation by nitrate of silver which were scarcely to be distinguished from a diphtheritic exudation; but to argue that membranous croup is not always diphtheritic because a membrane similar, though *not identical*, may result from the contact of a strong caustic is about as reasonable as to maintain that the small-pox eruption is not always variolous because tartarised antimony applied to the skin provokes a similar eruption.

Dr. Moxon argues, that since scalding water causes membranous tracheitis in healthy children, "it is theoretically to be expected confidently" that very cold air will cause membranous croup. This seems to me to be as obvious a *non sequitur* as it would be to maintain that because boiling water will coagulate albumen, "it is theoretically to be expected confidently" that very cold air will do the same. The effect of cold air upon the larynx and trachea can be determined only by observation unbiased by theoretical considerations. After long and careful observation, with the aid of all modern appliances, I have never seen membranous croup as a result of cold air unassociated with evidence of a specific organic poison. I therefore feel justified, if not in denying the existence of a non-diphtheritic membranous croup, in at least asserting its extreme rarity, and in asking for some better proof of its existence than has been given by Dr. Moxon, or by those writers, ancient and modern, who have obviously confounded two diseases so essentially different as catarrhal laryngitis and diphtheritic laryngitis.

Whether a diphtheritic exudation on skin or mucous membrane may result from more than one morbid poison we shall perhaps know when we have discovered some means of distinguishing these organic poisons other than by the observation of their morbific agency. Meanwhile we can only infer identity of cause from identity of effect.

Everyone who is engaged in private practice must know that a single sporadic case of unquestionable diphtheria in a family is of common occurrence. To assume that a disease cannot be diphtheria when it shows no tendency to spread to other members of a household is to ignore the plain teaching of daily experience.

I sincerely sympathise with Dr. Moxon in his reluctance to abandon a doctrine in which he has been educated, and which he, in his turn, has imparted to others; but with regard to the relation between croup and diphtheria he will sooner or later have to undergo that necessary and wholesome, but not entirely pleasant, process.

I am, Sir, your obedient servant,

Savile-row, March 1st, 1875. GEORGE JOHNSON.

To the Editor of THE LANCET.

SIR,—May I, through your columns, suggest to Dr. Moxon that he would be doing good service to pathology by publishing, should the occasion arise again, full accounts of the morbid appearances, including the histology, met with in cases of the production of false membranes in the trachea from simple irritation. Such cases are certainly rare, and I think exceptional, since I believe no other irritant than boiling water has been credited with the production of false membranes upon the respiratory mucous surface; and this narrow limitation must inevitably suggest a suspicion of the real nature of the membranes in question. Two other hypotheses are possible, and, in the absence of the facts, may be offered as conjectures. Are the false membranes produced by boiling-water sloughs resulting from necrosis of the epithelial layer *en masse*, as is, I believe, true of the similar structures produced by the action of corrosive poisons on the stomach? Or, on the other hand, is it possible that they may be due to a general loosening of the epithelial layer from exudation underneath, and the process thus be comparable to vesication? These are mere hypotheses, but I think they must be considered before we admit the production of actual fibrinous exudation (as the croup-membrane is generally described) upon a mucous surface, since we know that ordinary irritants do not, even when very intense, give rise to such an exudation, while it is produced by the slightest inflammatory stimulus on a serous membrane, as the pleura or peritoneum.

In fact, it would appear as if either the coagulable plasma

of the blood loses its coagulable power by filtration through an epithelial layer, or else that the production of fibrin is in all cases due to the reaction of blood-serum with elements or substances which exist on the serous but not on the mucous surface. At least, the rule which is susceptible of these explanations is a very general one, and the exceptions to it, real or apparent, seem to require the assumption either of a special cause, such as is the poison of diphtheria, or some possible confusion of things only apparently alike: the latter appears to be the case, I may remark by the way, with the "dysmenorrhœal casts" of the uterus, which no one has described as fibrinous exudation, though they have a perfect superficial resemblance to croupous casts of the trachea. I have no desire to express any opinion as to the general question of croup *versus* diphtheria; but will only point out that all things called false membranes need not be alike, nor, consequently, need all diseases supposed to be connected by producing such structures be alike, or, still less, identical.

I am, Sir, your obedient servant,

Savile-row, March 2nd, 1875. J. F. PAYNE.

BIRMINGHAM MEDICAL INSTITUTE.

To the Editor of THE LANCET.

SIR,—If I have suggested any doubt as to the honourable intention of the Committee of the Birmingham Medical Institute as a body, I beg your permission to state that the observations I placed on record in your issue of the 20th have been misunderstood. I do not doubt the honour of their intentions, but I do question the mode in which they have endeavoured to escape from a disagreeable position, into which I venture to think they drifted without due consideration of the consequences.

I now proceed to consider the answer to my letter, officially signed by the chairman and hon. secretaries of the Committee, and which appears in your present number.

My remarks divide themselves into two heads:—1. The steps taken by the original Committee of thirteen—those entrusted with the initiative previously to the first public meeting on the 4th February. 2. The steps taken by the primary Committee of Election, thirty-four in number, including the thirteen members of the original Committee, which was the outcome of the "so-called" meeting of the profession of the 4th. I take the headings in order.

During the preliminary deliberations necessary to float the Institute, the Committee became aware that a "professed homœopath" had tendered a donation to one of their members. The Committee seem to have seen their difficulty under these "embarrassing circumstances," but failed, as I think, to take the only course open to them if they really desired that the opinion of the profession on the propriety of accepting such a donation should be ascertained. The Answer says:—"It was agreed that this was a question to be settled by a public meeting." On this a circular was issued to the medical profession for fifty miles round (1400 were summoned) calling a meeting for the 4th February to discuss the plans necessary for carrying out the objects for which the Institute had been incorporated, to receive a list of donors, &c. &c. But in this circular was there any allusion to the "very difficult question," only too well known to the Committee, that amongst the list of names of donors then to be read out would be that of a "professed homœopath," and that the subject of the acceptance of this would be then and there considered? Not one word! This would indeed have been a "report to the profession." Up till the time of the reception of this circular, I, in common with the outside profession, knew nothing of the action of the Committee, although, as I have said, it "leaked out" about the donation in question; but this casual knowledge could not possibly extend to the 1400 members of the profession who had received the circular, and, indeed, was only known as a matter of probability to the few. I attended the meeting to help to inaugurate the "greatest medical institution which was ever projected in Birmingham," and found it, so far as numbers were concerned, a very poor representation of the profession; and I will venture to say a very different meeting would have gathered had it been published in the circular that the "difficult question" would be considered. The real importance seemed that the representatives of the local press were there. Here was the desired public meeting, and yet not one word was uttered by those who arranged its proceedings as to the "question of difficulty," but the name of the "professed homœopath" giving the donation was read out. Now, I cannot think that those who conducted this meeting will venture to say that they were in ignorance of the intention, not only of myself but of others, to test the view there and then on the question. More than one of the members of the Committee expressed the hope in conversation that I would *postpone* the motion (hurriedly written in the room), as I was told a discussion before the press would injure the Institute. I therefore yielded on this ground only, and was thanked for doing so.

Thus we are brought to the formation of the primary Committee of Election and the second head of this statement.

Have you, Sir, the slightest doubt, or will your readers have, of what were my convictions as to the steps which the Committee would take? I was satisfied they would adjourn on their assembling, so as to defer the election of members until a meeting of the profession could really be called to say whether a "professed homœopath" should be elected or no. That which the Committee of thirteen felt incapable of doing, the Committee of thirty-four felt equal to, and so, despite entreaties to await the wishes of a larger constituency, the assembly of thirty-four decided for fourteen hundred. I say at once that I never entertained for a moment the idea that such a committee would undertake to deal with the question of the admission of homœopathists—I am certain the profession never entertained the idea,—neither could I believe that the original Committee would have the temerity to publish the list of donors before the Election Committee met, and I know that the secretary was warned against any publication of contributors until after the meeting of the Committee of Election—but in vain; the list of contributors, including the name of the "professed homœopath," was published in the local papers on the 8th, four days before the Committee met on the 12th to discuss the question, so embarrassing to them, as to whether such donations should be received or not. The publication of the list of donors made the way easy before such a Committee for the resolution, "That it be recommended that all those legally qualified members of the medical profession who have contributed to the Birmingham Medical Institute to this date be and are hereby elected members." Why, Sir, here was the "difficult question" met face to face without an allusion to homœopathy. Here was the resolution of the "independent member" for the second time. I must still regard the resolution of the independent member as the approved resolution of a majority of the original Committee, and hence I must yet regard the Election Committee as being composed in the main of members with a foregone conclusion, and as in no sense entitled to speak for the great body of the profession. I also believe the profession of Birmingham, and the district by which it is surrounded, is "quite strong enough to take care of its own honour and interests." I shall be content to leave to its judgment the subject under discussion, and express my willingness to abide by its decision, whatever that may be.

In conclusion, Mr. Crompton will not, I trust, accuse me of discourtesy if I say that his kindly and amusing letter, to which you also give publicity, fails to my mind to touch the very grave matters at issue; and therefore I have the less regret in leaving its consideration to your readers.

I am, Sir, yours &c.,

Birmingham, March 1st, 1875. OLIVER PEMBERTON.

THE ADULTERATION BILL.

To the Editor of THE LANCET.

SIR,—In THE LANCET of last Saturday I find a statement to the effect that you believed that no exception had ever been taken to the quality of the analytical work of the Chemical Laboratory of the Inland Revenue Department, and you indicated that body as a suitable one to act as a board of chemical referees in disputed cases of adulteration. You also enumerated the various towns in which branch laboratories have been established in connexion with the Excise. I would, with your permission, point out that,

although the Excise laboratory has been in existence for many years, adulteration has nevertheless been very prevalent, so that some years since there was not an article bearing an Excise duty, and which therefore was under their special charge, which was not subject to extensive adulteration, and this often of the grossest description. Further, up to this date the Excise has done little or nothing to add to our knowledge of adulteration, or to the scientific means whereby it may be discovered. I fail, therefore, to see either the propriety or the justice of the proposal of constituting the chemists of the Excise the board of reference in contested cases of adulteration. Certain I am that this Board would not command either the confidence or the respect of the public or of the scientific world. Were the appointment of such a tribunal desirable—and I shall shortly proceed to give my opinion that it is not so,—there are many chemists who have laboured hard on the subject of adulteration, and who are in every respect thoroughly competent, who might fairly look to form part of any such court of appeal, and who would command the full confidence of the public.

But there are other reasons against the appointment of the Excise for such a duty—namely, the office is simply to check the adulteration of excisable commodities, and they do not concern themselves with adulteration generally. Those articles which do not bear an Excise duty receive little or no attention from them, and they do nothing to prevent and expose their sophistication. Again, they are a Government body, and are therefore not strictly independent, but are under such influence as will necessitate their working in correspondence with the wishes of that Government. Lastly, their appointment would tend to create a monopoly of analytical work throughout the country to the injury, and it may be to the ruin, of many of the gentlemen who have of late years been induced to devote their attention to analytical pursuits, and whose success in life depends on their obtaining that work which hitherto they have had a reasonable expectation of securing.

I have now, I think, said enough to show how extremely undesirable it is that the chemists of the Inland Revenue Department should be constituted a court of appeal in disputed cases of adulteration. But I go further, and I entertain the opinion that the appointment of any such court is uncalled for and unnecessary, and that it would be far better to leave things as they are at present. There is now no deficiency of competent and independent chemists, and their number is rapidly increasing, and it is not at all probable that in the future the truth will remain undiscovered, and that justice will be defeated through the incompetence of the analysts on either side. If, unfortunately for his own reputation, any analyst were now-a-days to make a mistake, a very few hours would elapse before that mistake would be discovered and set right by another analyst, so that no substantial injustice would be done. This course would be consistent with liberty and freedom of action and would ensure the success of all the more competent analysts, and it would surely be far better than the creation of a gigantic monopoly in the hands of men by no means the best versed in the subject of adulteration.

What would be thought of the proposal, that because there are good lawyers and bad lawyers, and possibly some client might lose his cause through the employment of a bad lawyer, for the safety of the public a Court of Legal Referees should be appointed, to which they should be compelled to have recourse, and that they should not be at liberty to choose the lawyer they think the best suited to their case? Would such a monopoly as this be tolerated in law or medicine? I am sure it would not. Why should it be so in analytical chemistry?

I remain, Sir, your obedient servant,

ARTHUR HILL HASSALL, M.D.

John-street, Adelphi, March 3rd, 1875.

A DEPUTATION from the Corporation of Birmingham recently waited upon the President of the Local Government Board in order to urge upon him the desirability of inserting in the measure to be shortly introduced before Parliament, a clause enabling municipal corporations and other sanitary authorities to supply water within their jurisdiction for sanitary purposes.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members were elected Fellows of the College at a meeting of the Council on the 25th ult.:—

Giles, Peter Broone, L.S.A., Staunton-on-Wye; diploma of membership dated Dec. 1840.
Roper, Alfred George, L.S.A., Croydon; Aug. 1840.

BRITISH MEDICAL SERVICE.—The following is a list of gentlemen who competed successfully for appointments in the above Service at the examination held at the University of London on Feb. 15th:—

	Marks.		Marks.
Le Mottée, G. H. ...	1989	Mapleton, E. A. ...	1895
Dorman, J. C.	1985	O'Sullivan, D.	1840
Kellsall, E. W.	1980	Charlesworth, H. ...	1805
Chester, W. L.	1979	Sharpe, C. E.	1615

INDIAN MEDICAL SERVICE.—The following is a list of candidates who were successful at the competitive examination held at Burlington House on Feb. 15th:—

	Marks.		Marks.
Murray, E. D.	2290	Simmonds, W. A. ...	2130
Banking, G. S. A. ...	2277	Macrae, R.	2095
Comins, D. W. D. ...	2239	Adams, A.	2070
Moran, J.	2271	Borah Shibram	2050
O'Connor, P. F. ...	2250	Sturmer, A. J.	1998
Smith, H. H.	2180	Dane, A. H. C.	1960
Thomas, G. T.	2174	Greany, I. P.	1930
Beatson, W.	2173	Ferguson, J. C.	1920
Bate, T. E. L.	2165	Williams, B. H.	
Warburton, G. A. ...	2145	M'Cloghry, J.	1905

Forty candidates competed for twenty appointments. All were reported qualified.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on Feb. 25th:—

Evans, Frederick William, Crockherbtown, Cardiff.
Kyngdon, Frederick Henry, Croydon, Surrey.
Miller, Frederic Daniell, Streatham, Surrey.

The following gentlemen passed the Primary Professional Examination on the same day:—

Charles William Bass, University College; Thomas Richards, Guy's Hospital; George Wilson, Charing-cross Hospital.

DR. WILLIAM CROFTON has been placed on the Commission of the Peace for the County of Leitrim, and Mr. James Rawlings, M.R.C.S. Eng., for Hartlepool.

IN deference to the complaints which have appeared in the local press and elsewhere as to the objectionable state of the beach at Brighton, the Town Council have resolved to elect a committee to see into the matter.

DEATH OF PROFESSOR WILLIS.—The death of this eminent Professor of Natural Philosophy in the University of Cambridge took place on the 28th ult., from bronchitis. He was the author of many valuable scientific works, and was the president of the British Association for the Advancement of Science on its visit to Cambridge.

BEQUESTS &C. TO MEDICAL CHARITIES.—The new Royal Infirmary, Edinburgh, has received £19,811 on account, under a bequest in the will of Mr. Thomas Grindlay, which it is expected will ultimately amount to about £38,000. Dame Sarah Haberfield, of Clifton, bequeathed £5000 to the Bristol Royal Infirmary, to be invested in Consols, and the annual income applied for the maintenance and support of one of the existing wards, to be called Lady Haberfield Ward, and £1000 to the Bristol General Hospital, to be invested in Consols, and the annual income applied as a yearly prize, to be known as Lady Haberfield's prize, for the pupil who shall exhibit the greatest proficiency. The York County Hospital has received £4500 under the will of Mr. William Watt, for the erection of a new ward to be called the Watt Ward. Mr. Alfred Wigan, of Heatherden, Iver, bequeathed £500 each to the Home for Incurables, Putney, and St. Mary's Hospital. The Victoria Hospital for Sick Children, Chelsea, has received £250 from Harvie Farquhar, Esq., the Hon. Treasurer, towards the Building Fund. Miss O'Farrell has left £5000 to St. Vincent's Hospital, Dublin. Miss H. Bewick has bequeathed £600 to the Hospital for Incurables, £700 to the Convalescent Home, Stillorgan, and £200 to St. Vincent's Hospital, Dublin. Dr. L. O'Reilly has given £50 to the Hospital for Incurables, Dublin.

BOOKS ETC. RECEIVED.

White's Grammar School Texts: Cæsar, Book II.
Comte: System of Positivism.
Cooke and Berkeley: Fungi.
Austin Flint: Cutaneous Medicine.
Mr. Jos. Hands: Will, Ability, or Mental Volition.
Dr. Howe: The Breath.
Mr. Fry: The Law of Vaccination.
Fleming: Veterinary Sanitary Science. Vol. III.
Mr. Wm. Hyslop: Cheerful Words.

Medical Appointments.

BARRETT, C., F.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Shrivenham Sub-district of the Faringdon Rural Sanitary District, vice Wollaston, resigned: £10 per annum; acreage 14,714; population 2721.

BLAIR, A., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Certifying Factory Surgeon for Ceres, Fifeshire, vice Aitken, deceased.

DOWNING, E. H., L.R.C.P.Ed. & L.M., M.R.C.S.E., has been appointed Medical Officer to the Deptford South District of the Greenwich Union, vice Parker, deceased.

DUKE, Mr. T., M.A., has been appointed Assistant House-Surgeon to the Cumberland Infirmary, Carlisle, vice Allen, resigned.

DUNLOP, W. M., M.B., C.M. Univ. Glasg., has been appointed Medical Officer and Public Vaccinator for Nos. 1 and 2 Districts of the Woodbridge Union, Suffolk, Admiralty Surgeon and Agent for Aldborough (Southern portion), and Medical Officer to the Boyton Society Club.

ELLIOTT, C. B., M.R.C.S.E., L.R.C.P.Ed., formerly Resident Medical Officer at Perth, has been appointed Resident Medical Officer to the Colonial Hospital, Champion Bay, vice Ryley.

ELLIS, J. L., L.K.Q.C.P.I., L.M., has been appointed Assistant Medical Officer to the North Wales Counties Lunatic Asylum, Denbigh, vice Powell, resigned.

FOOT, R. H., M.D. Trin. Coll. Dub., L.R.C.S.I., has been appointed Assistant Medical Superintendent of the Fife and Kinross District Lunatic Asylum, Cupar, vice Mackenzie, resigned.

GRANT, J., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Parish of Stromness, Orkney, vice Macpherson, resigned.

GREWCOCK, Mr. G., has been appointed Medical Officer and Public Vaccinator for the Ropsley District of the Grantham Union, vice Shannon, resigned.

HARDING, W. E., L.D.S. R.C.S.E., has been appointed Dental Surgeon to the Salop Infirmary, Shrewsbury.

HAWARD, J. W., F.R.C.S.E., L.R.C.P.L., has been appointed an Assistant-Surgeon to St. George's Hospital, vice Rouse, resigned, and appointed a Surgeon.

HITCHINS, T. H., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer of Health for the Shipston-on-Stour Rural Sanitary District: £100 for one year; acreage 73,026; population 19,684.

HUNTER, W. L., M.B., has been appointed Resident Medical Officer to the Lewes Infirmary and Dispensary, vice Crockford, resigned.

JOHNSON, J., M.D. Univ. Ed., has been appointed a Physician to the Tunbridge Wells Dispensary and Infirmary.

KARKEEK, P. Q., M.R.C.S.E., L.S.A.L., has been appointed Accoucheur to the Torquay Lying-in Charity, vice Hartland, deceased.

KENNEDY, H., M.B. Univ. Dub., F.K.Q.C.P.I., has been appointed a Physician to Simpson's Hospital, Dublin, vice Law, resigned.

KENNEDY, J. S., M.R.C.S.E., L.S.A.L., has been appointed a Certifying Factory Surgeon, vice A. Kennedy, deceased.

LANKESTER, Mr. E. R., Fellow of Exeter College, Oxford, has been appointed Professor of Comparative Anatomy in University College, London, vice Grant, deceased.

LAW, W. T., M.D.Ed., M.R.C.S.E., L.S.A., has been appointed House-Physician to the Seamen's Hospital, Greenwich, vice A. Duncan, whose appointment has expired.

MURPHY, Dr. G. W., has been appointed Medical Officer to the Ramelton Fever Hospital, vice Carre, resigned.

ROBERTS, C. H., L.R.C.P.L., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for No. 4 District of the Alderbury Union, vice Bennett, resigned.

ROBINSON, C. H., F.R.C.S.I., has been appointed Medical Officer to the Mutual Benefit Medical Association, Dublin.

RUNDLE, G. R., L.R.C.P.Ed., L.R.C.S. Ed., has been appointed District Surgeon and Medical Officer to the Municipality of Glamorgan, Tasmania.

SAMPSON, H. M., M.R.C.S.E., has been appointed Assistant House-Surgeon and Dispenser to the Kent and Canterbury Hospital, vice Moses, resigned.

SPENCER, L. W., L.R.C.P., M.R.C.S., L.S.A., has been appointed Medical Officer of Health for the Rural Districts around Preston.

TANNER, R., M.D. St. And., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Ledbury District and the Workhouse of the Ledbury Union, Herefordshire, vice Symmons, appointed Resident Medical Officer to the Chorlton Union Workhouse.

TAYLOR, A. H., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Kilgarvan Dispensary District of the Kenmare Union, Co. Kerry, vice A. Taylor, resigned.

WARREN, A., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Certifying Factory Surgeon for Wooburn, Bucks, vice Littlewood, resigned.

WEBB, Mr. W. H., has been appointed Assistant House-Surgeon to the Salop Infirmary, Shrewsbury, vice Davison.

WILLIAMS, P., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Kidwelly District of the Llanelly Union, vice Humphreys, resigned.

WOOD, J. H., M.B. Lond., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Yarkhill District of the Ledbury Union, Herefordshire, vice Symmons, appointed Resident Medical Officer to the Chorlton Union Workhouse.

Births, Marriages, and Deaths.

BIRTHS.

BELL.—On the 22nd ult., at Rochester, the wife of John Albert Bell, M.R.C.S.E., of a daughter.

CHOLMELEY.—On the 20th ult., at Grosvenor-street, the wife of William Cholmeley, M.D., prematurely, of a son, still-born.

EVANS.—On the 21st ult., at Brymbo, Wrexham, the wife of Owen T. Evans, M.R.C.S.E., of a son.

EVERSHED.—On the 26th ult., at Belle Vue, Hampstead, the wife of Arthur Evershed, M.R.C.P., of a daughter.

FALVEY.—On the 22nd ult., at Tralee, the wife of F. J. Falvey, L.R.C.P.Ed., of a son.

INGOLDBY.—On the 23rd ult., at Canonbury-square, the wife of J. T. Ingoldby, M.B., of a daughter.

ROE.—On the 25th ult., at Lower Baggot-street, Dublin, the wife of William Roe, M.D., of a daughter.

SEALY.—On the 21st ult., at Oak Hill, Weybridge, the wife of George J. Sealy, M.D., of a daughter.

STUART.—On the 1st inst., at Park-road, Newcastle-on-Tyne, the wife of James S. Stuart, M.D., of a son.

WEATHERS.—On the 21st ult., the wife of George Weathers, M.R.C.S.E., Hampstead-road, of a daughter.

WEBB.—On the 28th ult., at Dundrum, the wife of Thomas Wilson Webb L.R.C.P.Ed., of a son.

MARRIAGES.

DUNCANSON—BAIRD.—On the 24th ult., at Whitehouse-terrace, the residence of George Simpson, uncle of the bride, J. J. Kirk Duncanson, M.D., Edinburgh, to Isabella, eldest surviving daughter of the late Robert Baird, Esq., of Limerigg, Stirlingshire. (No cards.)

FINLAY—CHALMERS.—On the 22rd ult., at St. Jude's, South Kensington, William Alexander Finlay, M.D., to Adela Edith, daughter of the late John Chalmers, Esq.

WELCH—GRUNDY.—On the 23rd ult., at St. John's, Lytham, Francis H. Welch, F.R.C.S.E., Staff Surgeon Army, of the Royal Victoria Hospital, Netley, to Agnes, daughter of Frederick Grundy, Esq.

DEATHS.

BARNES.—On the 25th ult., Christopher Hewetson Barnes, L.R.C.P.Ed., of Colcherne-terrace, South Kensington, aged 73.

BROWN.—On the 20th ult., at Morningside-place, Edinburgh, E. J. Brown, M.D.

COLLINSON.—On the 20th ult., Alfred Cockburn Collinson, M.R.C.S.E., of Sandgate, aged 25.

DAVENPORT.—On the 19th ult., at Leek, William Davenport, M.R.C.S.E., of Westwood Villa, Hayfield, Derbyshire, aged 52.

EDMUNDSON.—On the 23rd ult., Thomas Robert Edmundson, L.R.C.P.Ed., of Stokesley, Yorkshire, aged 37.

MALAN.—On the 14th ult., at Torre Pellice, Italy, Dr. Charles Malan, formerly a Medical Officer at the Crichton Institution, Dumfries.

ORMEROD.—Found dead in bed on the 23rd ult., William George Ormerod, M.R.C.S.E., of Portland-square, Bristol.

RICHARDS.—On the 20th ult., William Moseley Richards, M.R.C.S.E., of Stourbridge.

SWAIN.—On the 23rd ult., Isaac Howard Swain, M.D., of Brindley Ford, Congleton, aged 36.

THORNHILL.—On the 20th ult., at Nenagh, Wm. Thornhill, M.B., F.R.C.S.I., of Upper Pembroke-street, Dublin.

[N.B.—*A fee of 1s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

METEOROLOGICAL READINGS

(Taken by Steward's Instruments).

THE LANCET OFFICE, MARCH 4TH, 1875.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia. in Vacuo	Max. Temp. Shade	Min. Temp.	Rain-fall.	Remarks at 9 A.M.
Feb. 26	29·55	E.	37	38	...	37	34	0·05	Overcast
„ 27	29·61	E.	33	35	...	37	34	...	Overcast
„ 28	29·75	E.	...	33	...	34	32	...	Overcast
Mar. 1	29·76	N.E.	...	32	...	35	31	...	Overcast
„ 2	29·79	N.E.	...	32	...	36	31	...	Overcast
„ 3	29·83	E.	33	35	...	39	31	...	Overcast
„ 4	29·99	E.	34	35	...	...	33	...	Overcast

Notes, Short Comments, and Answers to Correspondents.

THE SUNDERLAND INFIRMARY.

DR. ABRATH seems to have a great deal of leisure for scribbling. In addition to prospective labours in the shape of new editions of the "Disclosures," he is contemplating a work to be entitled "The English Medical Misery," in which it will be suggested that the Medical Council should have power to control charitable institutions and medical men. At least one man intends distributing some hundreds of copies of this work among members of Parliament with a view to the proper ventilation of the subject. It is probably useless to suggest to Dr. Abrath and his benevolent friend that the pamphlet will find its way uncut into the waste-paper basket of honourable members.

BREAD MADE WITH SEA-WATER.

A CAREFUL analysis of sea-water made by M. Dony in 1874 has shown that its composition is far superior to that of some of the best known saline springs of Germany and France. As these waters have for a long time been used in cases of poverty of blood, M. Lisle proposes to invigorate patients by feeding them upon bread made with sea-water (*Bulletin de Thérapeutique*, February 15th, 1875). The author has experimented with this bread upon himself, and has found that its use raises slightly the temperature of the body. The sea-salt obtained in the usual manner would not answer; for, as M. Lisle justly remarks, there is an enormous difference between the sea-salt of commerce and the salt dissolved in sea-water. The latter is, after all, a mineral water, and it is well known that mineral waters form a homogeneous whole, the elements of which possess value principally on account of their intimate association, their distinctly defined combinations, their greater state of division, and because they possess powerful properties which they only partially retain, or lose altogether, when isolated. Finally, M. Lisle thinks that the bread made with sea-water will be of great value in the following complaints:—1. As a hygienic and preservative agent with healthy people of delicate constitutions. 2. In the convalescence of acute diseases. 3. In all apyretic disorders of the stomach and the digestive functions. 4. In such neuroses as are accompanied by poverty of blood. 5. In diabetes. 6. As a prophylactic in the scrofulous and tuberculous diatheses.

F. H.—Yes.

VALUE OF QUININE IN SCIATIC NEURALGIA.

To the Editor of THE LANCET.

SIR,—I beg leave to send you an account of a case of sciatic neuralgia, apparently of traumatic origin, which I have under my care, and which shows the effect of quinine in certain forms of the disease.

Mrs. ——, a strong healthy woman, fifty-five years of age, met with an accident on the 2nd of January last. When walking in the street her feet slipped, and she came down on the ice in a sitting posture, bruising her left thigh a good deal, immediately beneath the gluteal fold, and over the course of the sciatic nerve. She had considerable pain from the first, but was not compelled to take to her bed until the 26th, when I first examined her. The symptoms were those of sciatic neuralgia, the pain extending down the back of the thigh, and, in the leg, following the course of the external saphenous nerve. The most painful part was the seat of the injury; but there was no hardness or other sign of inflammation. The patient found relief from lying on the affected side, in such a position that the painful parts were pressed against the bed.

During the first two days the treatment adopted was opium externally and internally, with hot turpentine fomentations. Counter-irritation by blisters was impossible from the position in which the patient lay in bed.

On Jan. 28th, a mixture containing iodide and bromide of potassium, ten grains of each to a dose, was administered. This treatment was continued for two or three days. There was improvement, whether due to the treatment or not.

On Feb. 1st it was observed that the disease had assumed a decidedly intermittent character, coming on in excruciating paroxysms at night. The bromide and iodide mixture was abandoned for a time, and quinine was given, thirty grains in divided doses on each of the first two days, the effects being carefully watched. On the third day the amount was diminished to fifteen grains. The large doses caused great deafness and noise in the ears, but the improvement was well marked. During the next few days quinine was administered only when the neuralgic symptoms were urgent; and on the 5th, for the first time, the patient got out of bed for a little. On the 7th, as the paroxysmal pain had given place to a constant aching, the iodide and bromide were resumed, but the quinine was again found to be necessary. From that date until the 19th, quinine was given nearly every night in ten-grain doses, and blisters, which were found very useful, were occasionally applied over the painful parts. During that time the symptoms were such as to leave no doubt of the efficacy of quinine. The pain began every morning about one o'clock; but if the patient was asleep it was not sufficient to awaken her until between two and three. If taken at ten P.M. the quinine did not entirely prevent the paroxysm. If taken at one A.M. it prevented it entirely. If the dose was not taken until three, the patient suffered for about half an hour after taking it, and then fell asleep. In consequence of the experience thus gained, the ten-grain dose of quinine was latterly left every night at the bedside for her to take when she felt the pain come on. Since the 19th the dose has not been found necessary every night, and warmer weather seems all that is necessary for complete recovery. With the exception of tinnitus and deafness, no disagreeable symptoms of consequence have been caused by the medicine.

I remain, Sir, yours respectfully,

Glossop, Derbyshire, Feb. 23rd, 1875. D. J. MACKENZIE, M.D.

T. C. D., (Dublin.)—There is some talk of the issue of a memorial volume of the Harvard University, the history of the institution to be written by President Eliot, and that of the medical school by Dr. Oliver Wendell Holmes.

Mr. M'Adam, (Glasgow.)—We do not prescribe. Consult a medical man.

ORNAMENTAL PRESERVATION OF THE DEAD.

To the Editor of THE LANCET.

SIR,—I should like to suggest for the consideration of those interested in the question of interment the use of glass cases, tubular in form (the shape used for growing cucumbers); the smaller end of the tube completely closed, into which tube the body would be passed first, and then hermetically sealed above and beyond the head. The body, thus converted into a "vitreous mummy," might be retained in the house for a longer time, while friends would have the opportunity of viewing the body without detecting any offensive odour. These glass coffins might be made as handsome as anyone desired. The wealthy could have them made coloured and cut, like Bohemian vases; while for the poor the coarse stout glass used for skylights would not be much more expensive than wood lined with flannel, &c. I am, Sir, yours obediently,

Holbrook, February, 1875. A. FLEMING, M.D.

ANEURISMAL COMPRESSION FOR TWO YEARS.

THE rapid and admirable cures obtained by compression, either digital or mechanical, are now so numerous that we read the announcement of cases of the kind with perfect composure. A compression of an intermittent description lasting, however, for two years is apt to arrest attention. Such a case was lately brought before the Surgical Society of Paris by M. Gallerand, of Brest. The aneurism occupied the upper part of the femoral artery, and reached up to the iliac fossa. Various modes of compression were used for two years without any result. At last the author of the paper tied the external iliac artery, and the best hopes were entertained, as during the protracted, though intermittent, compression which had been used, the collateral circulation had had time to became established; but the patient died of pyæmia sixteen days after the operation. The sac was thin, and contained blood mixed with pus.

THE SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

To the Editor of THE LANCET.

SIR,—The numerous appeals which are made from time to time to medical men on behalf of the widows and orphans of their deceased professional brethren make us anxious to draw your attention to the advantages offered to medical practitioners residing within the London district and in Middlesex by the Society for the Relief of Widows and Orphans of Medical Men. This Society, instituted in the year 1788, has now an accumulated capital amounting to more than £70,000, the interest on which, together with the subscriptions of members and donations, is distributed in grants to those widows and orphans of members deceased who have been left unprovided for. At the present time there are 58 widows and 20 children receiving annual grants from the Society, which last year amounted to £2930 10s., and in this manner £89,761 3s. 6d. have been distributed since the formation of the Society.

The Secretary attends at the office, 53, Berners-street, Oxford-street, every Wednesday and Friday from 4 to 5 P.M., and from him may be obtained copies of the laws, lists of members, and forms of proposal for membership. He will also give any information required.

We are, Sir, yours truly,

GEORGE BURROWS, President.
JAMES T. WARE, }
WILLIAM FULLER, } Treasurers.
RICHARD QUAIN, M.D., }
JOS. B. BLACKETT, Secretary.

Berners-street, March 3rd, 1875.

Dubitans, (Holloway.)—We presume reference is made to the late Mr. Joseph Henry Green, F.R.S., who was the literary executor of S. T. Coleridge, and who is stated to have mastered Hebrew at sixty years of age, and to have subsequently attained considerable proficiency in Sanscrit. These labours were probably entered upon to qualify him more fully for the production of his "Spiritual Philosophy"—a work founded upon the teachings of Coleridge.

LADIES' RETIRING ROOMS.

To the Editor of THE LANCET.

SIR,—The gentlemen who have associated themselves to form a Company for the purpose of establishing ladies' retiring rooms, &c., are much indebted to you for the notice of their project which you were pleased to give in your issue of Jan. 16th. With reference to your concluding remark as to the risk which ladies might run of contracting a contagious disease, those gentlemen would be glad of an opportunity of stating in your columns, for the information of "parents and husbands," what they could not very well set forth in their printed scheme—namely, that it will be insisted on that the matron in charge will see, immediately after any closet is used, that it is well cleansed and dried, and in all respects made fit for subsequent use. In order that this may be effectively carried out, as large a number of closets as possible will be fitted up at each of the resting-places. Moreover, it is in contemplation to introduce more than one *description* of convenience, and large sheets of paper will be provided for placing over the seats if desired, and other similar provisions will be made. For example, a large number of *false seats* might be prepared at comparatively small cost, very light and capable of being readily washed all over, so as to allow of a perfectly clean and dry seat being available for each visitor. The main seat of each closet will be of highly polished wood, probably mahogany, and glazed tiles will be very freely employed. The gentlemen associated with me are well assured that the success of the undertaking will depend in great measure upon one thing, and that is *cleanliness*. With thanks on their behalf,

I remain sincerely yours,

TOM NICHOLS,

Strand, March 1st, 1875. Hon. Sec. to the proposed Company.

Decimus.—A soldier on furlough is not, we believe, entitled to medical attendance at the expense of the State, and the same rule probably applies to H.M.'s sailors. Our correspondent should forward a communication to the Admiralty on the subject.

Mr. Wm. Easby, (Darlington.)—We shall be glad to receive a short report of the case.

LEPROSY IN CANADA.

To the Editor of THE LANCET.

SIR,—In your journal of Nov. 14th, 1874, p. 707, is a paragraph expressing surprise at learning of the existence of a Leper Asylum at Tracadie, New Brunswick, Canada. A type of a group of these lepers is before me, sent me by Dr. A. C. Smith, recently in charge of the asylum, for such it simply is now. The Report of the Royal College of Surgeons on Leprosy, 1867, will give any of your readers a full account of this Leper Hospital. I do not know where non-contagiousness of leprosy is better proved than among those descendants of one French family that brought the disease to New Brunswick. There are a goodly number of medical gentlemen in London—Mr. Hutchinson, Dr. Fox, Mr. Liveing, Mr. Tay, and others besides Mr. Wilson—who will, with myself, be astonished at your being surprised to find from the *Toronto Globe* that leprosy exists in Canada.

I am, Sir, yours respectfully,

Boston, U.S.A., Feb. 13th, 1875. B. JOY JEFFRIES, M.D.

THE RAPIDITY OF PROPAGATION OF EXCITATION IN MUSCLE.

THE investigations of Aeby, v. Bezold, Place, and Valentin showed that the rapidity of propagation of excitation in a muscle was about forty inches per second. More recently, however, Bernstein, employing a different muscle, came to the conclusion that the rapidity was much greater—in fact, not less than 170 inches per second. Hermann has recently pointed out (Pflüger's *Archiv*, 1875, p. 43) that both sets of experiments were vitiated by the circumstance that muscles were selected which had a tendinous intersection. He himself used the sartorius of the frog, and the result he has obtained is that the rapidity of propagation is about 120 inches per second.

UNIFICATION *versus* REGIMENTALISM IN THE ARMY MEDICAL DEPARTMENT.

To the Editor of THE LANCET.

SIR,—I hope that you, and with you the profession both in the army and out of it, will remember the principle that is at stake in what is called unification. Whatever its defects, and there are defects, it is still an aiming at medical independence in the organisation and working of army hospitals—a principle that should be dear to every officer in the department. It aims at putting an end to a state of things always unpleasant and often painful in the friction between the military and medical branches of the army. That aim you would imagine would commend itself to every officer of our service; but I am sorry to say that many of them think more of narrow personal comforts than of their department, and they sacrifice it without scruple if it in any way interferes with their enjoyment of life. I confess it is pleasant to have a comfortable mess, and to have every arrangement made for you by somebody else; but to my mind there is something higher than this, in standing by our profession and our department at all cost, and striving to lift it up and raise it to a higher level than before. But I find men dead to all such thoughts, and they prefer to cling to the coat-tails of some regiment, and submit to many unpleasantnesses rather than make a stand for their department.

Pray remember the regimental system means utter subordination to regimental authorities, and the hospital becomes a mere adjunct to the regiment, instead of being, as it should be, an important unit in the army. It is wholly impossible for the department to take any position while that system exists, and remember that 100 years of regimental system have gone by, and has anything been done in it to make us independent, or to give us our true place? Little if anything, and the position of the department in March, 1873, was as much complained of as it possibly could be. Look over your journal during the past ten years, and see if it is not full of complaints from regimental men of grievances and drawbacks. Give us ten years of unification, and I feel sure we will do much. Note also that the unification system has had to bear an undue weight of unpopularity, because many of our administrative chiefs are wholly unable to administer and deal with a large corps of officers like ours, because, trained in the wretched regimental system, everything had been done for them in the old days by the regimental military authorities, and when, old men, they come to feel the weight of administration, they are unable to bear the strain. Several of them also are wholly wedded to the old system, and delight to make every obstruction to the new. In England everything is done slowly. Give us time with this unification, and let us try what even five years will do. We can then see the defects and remedy them, and I feel certain in the end we will make our department better in every way. The cream of the department—men who were always good officers—are most of them unification men, and I tell you plainly numbers of men who complain of the new system literally do not know what it means. They have never studied the system, and take up the note of complaint in the most parrot-like way.

As to the system being unpopular with commanding officers, pray think, why should it be otherwise? It means to them loss of power in dictating and controlling the hospital affairs. It stops all talking about "my doctor" and "my hospital," and such like impertinences. It stops all power of putting pressure on a medical officer, to invalid or take into hospital objectionable men. It renders sick leave and sick boards more difficult to obtain. Why should it not then be unpopular?

Further, as to the increase of sick. Remember, unless a man is fit for duty he must under the new system be in hospital. Under the old regimental system it was not so, and as I write there is before me a long list of different kinds of ways we have in the regiment to which I belong in dodging this rule by "convalescent duty," "attending hospital," "light duty," and such like, all quite contrary to the Queen's Regulations, yet done privately in the regiment.

Finally, when army doctors allow it to be said that they would take less interest in outsiders than in men of their own especial corps, they allow a most heinous charge to be made against the department, and one which is utterly false also. Every man who wears the uniform of the State should be equally worthy of attention at their hands, and would be I am sure; but some men who want to prove certain lines of argument will advance all kinds of assertions in the most rash and thoughtless way, really never meaning them.

Yours &c.,

India, January, 1875. I. V. R. C.

Novice.—Application for training in nursing at St. John's House, in connexion with King's College or Charing-cross Hospitals, for ladies, or respectable women of all classes, may be made to the Lady Superior, 8, Norfolk-street, Strand, by letter, or personally any day between 11 and 1 A.M.

JABORANDI.

To the Editor of THE LANCET.

SIR,—I should be very much obliged if either Dr. Sydney Ringer or Dr. Gould would be kind enough to answer the following questions about jaborandi in the columns of your journal.

1st. Does it reduce the strength of the patient, and, if so, to what extent? 2ndly. Would it be safe and of advantage to the patient to give it in dropsy arising from disease of the heart? 3rdly. Since the cases which they reported in your issue of 30th January appear to have been experiments made upon people whose temperature was normal, is there any reason to suppose that the excessive perspiration would reduce the temperature at the commencement or during fever?

Your obedient servant,

Keighley, Feb. 23rd, 1875. ARTHUR ROBERTS.

Chirurgus Copiarum (Worcester) had better consult an able series of articles on the "Alimentary Treatment of the Soldier in the Modern Armies of Europe," contained in the *Rivista Militare Italiana* for 1874. The writer, Captain Malaguzzi, thinks he has proved that in times of peace the Italian, Swiss, Austrian, Belgian, German, and Russian soldiers are defectively supplied with butcher's meat in their rations; that the Swiss and German have also a deficient quantity of bread; while the Belgian, the Swiss, the English, the Austrian, the Italian, and the French ought to have more vegetables. In war-time the Belgian, Austrian, and Italian (1866) suffered from want of butcher's meat. The scarcity of bread is compensated in the German ration by the greater quantity of vegetables, and the same deficiency is remedied in the Russian and English by vegetables and meat combined. The German, the English, and the Russian are, according to Captain Malguzzi, the best victualled in the world.

Mr. Thos. Bond is thanked.

DIVISION OF POSTERIOR TIBIAL ARTERY TREATED BY COMPRESSION.

To the Editor of THE LANCET.

SIR,—I should be glad if you would insert the following case, which seems to me to have some points of interest.

J. F——, aged fifty, a hay-trusser, was returning home from work with his large hay-trussing knife and three-pronged fork (weighing together about 6 lb.) slung over his shoulder upon the end of a stick. The strap by which they were attached to the stick gave way, and the point of the knife fell upon the right ankle, which was hindermost, in the act of walking. Not knowing what mischief had occurred, he continued walking until he fainted, when his assistant, who was with him, thinking he had swooned from loss of blood, applied a strap firmly round the leg below the knee, and got him home as best he could. When I arrived an hour after, I found the patient being held in a chair by two men. He was decidedly under the influence of alcohol, with a very feeble pulse, and lips blanched from loss of blood. Having placed a candle upon the floor, so that I could more perfectly examine the wound, I proceeded to adjust a tourniquet over the femoral, and removed the strap which had been placed below the knee. The patient simultaneously kicked the candle over, and left us in the dark. Finding it utterly impracticable under all circumstances to attempt to secure the artery (which spurted so soon as the strap was removed), I applied a graduated compress directly over and above the wound, put the patient to bed, and left him for the night. I kept the bandage and compress on for twenty-one days, and the patient in bed. At the end of the eighth day I made a small hole in the bandage for the exit of any matter which formed, and beyond that left it entirely alone. On the twenty-first day I removed everything, and found a wound three inches long, extending obliquely downwards and forwards below the inner malleolus, with a healthy granulating surface. No pulsation can be detected below the wound, and there has been no hæmorrhage since the day of the accident. The patient came downstairs on the twenty-second day, and walked about his house with the aid of a stick, and, beyond feeling weak from loss of blood, complains of nothing.

Yours &c.,

EDWARDES KERR, L.R.C.P. Lond., &c.

Wickham Market, Suffolk, February 8th, 1875.

Zeta.—A medical inspector of seamen is appointed in the same way as a medical inspector of merchant ships, his remuneration being paid out of the Mercantile Marine Fund.

EXPERIMENT IN TRANSFUSION, 1666.

To the Editor of THE LANCET.

SIR,—To those of your readers interested in the history of transfusion the following extracts from the "Diary of Samuel Pepys" may not seem impertinent:—

"Nov. 14th, 1666.—Dr. Croone told me that, at the meeting at Gresham College to-night (which it seems they now have every Wednesday again), there was a pretty experiment of the blood of one dog let out (till he died) into the body of another on one side, while all his own ran out on the other side. The first died upon the place, and the other very well, and likely to do well. This did give occasion to many pretty wishes, as of the blood of a Quaker to be let into an Archbishop, and such like; but, as Dr. Croone says, may, if it takes, be of mighty use to man's health, for amending of bad blood by borrowing from a better body.

"16th.—This noon I met with Mr. Hooke, and he tells me the dog which was filled with another dog's blood at the College the other day is very well, and like to be so as ever, and doubts not its being found of great use to men; and so do Dr. Whistler, who dined with us at the tavern."

I am, Sir, yours obediently,

Barrow-in-Furness, Feb. 1875. ERNEST SHEAV.

Dr. J. D. L. Temple.—We should have published our correspondent's letter, but it is out of date.

THE NORTH SURREY SCHOOLS.

The Times says:—"The report of Dr. F. J. Mouat, Inspector of the Local Government Board, on the result of a recent visit to the North Surrey District Schools at Anerley, has just been published. He states that this is his fourth visit to the North Surrey Schools since the improvements projected a little more than two years since have been carried out. So thoroughly, honestly, and heartily has everything been done to raise the tone, mental and bodily, of the children that the result has come upon him almost as a surprise. Not only has ophthalmia been practically extinguished, but whereas a thoroughly healthy, rosy child was then an exception, now the healthy and robust are the rule, the sickly the exceptions. The greatest improvement of all is probably in the gymnastic exercises of the boys and the calisthenics or musical drill of the girls, of which, Dr. Mouat says, it would be difficult to over-estimate the value, immediate and prospective. The original defective physical type of the children is the greatest difficulty which has to be met and overcome in their training, and this has been admirably dealt with, and affords an excellent model for imitation in all the other metropolitan schools of the same class, not one of which has yet attained the same standard."

MIDWIFERY ENGAGEMENTS.

To the Editor of THE LANCET.

SIR,—Thinking the following may be of interest to some amongst your numerous readers, I herewith send you it.

In an action this day at the Marylebone County Court of Self v. G., the defendant's wife, introduced by her mother-in-law, engaged me on September 7th, 1874, to attend her at her confinement for December, 1874. She did not send for me, and, in fact, the mother-in-law acted as midwife; this making the third case in which the same woman had acted as such, and in which she had previously introduced each patient to engage me. It transpired that her object was, should the case prove a difficult one, the doctor would be sent for; but these three cases being natural she attended them herself, and so saved the doctor's fee. The Judge, Mr. Serjeant Wheeler, gave plaintiff the verdict, saying the contract was a perfectly valid one.

Yours truly,

F. A. HILL, L.R.C.P.

Springfield-road, St. John's-wood, March 2nd, 1875.

THE DAVEY DEFENCE FUND.

FURTHER contributions received on behalf of the above Fund:—

Amount previously announced... ... £837 7 0

D. De Berdt Hovell, Esq....	£1	1	0	Dr. G. Corfe, Brighton ...	£2	2	0
T. H. Bodman, Esq.	0	7	0	Dr. F. Edwards, Burdingford	1	1	0
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COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Prof. Humphry, Cambridge; Dr. G. Johnson, London; Mr. Hulke, London; Dr. R. J. Lee, London; Dr. Wilks, London; Dr. Bazzard, London; Dr. Thudichum, London; Mr. Ashenden, Hastings; Mr. Lees; Mr. Gordon Brown, London; Mr. Austin, Aberdeen; Dr. Mackey, Birmingham; Dr. Harvey, Aberdeen; Dr. Ralfe, London; Mr. Graveley, Newick; Mr. Newington, Tenterden; Mr. M'Adam, Glasgow; Mr. Naylor; Mr. Braden, Lewes; Mr. Pemberton, Birmingham; Mr. Lattey, Rugby; Dr. Payne, London; Mr. Nicholls, London; Mr. Winchester, London; Mr. Robinson, Dublin; Mr. Hill, London; Dr. Law, London; Mr. Reilly, London; Mr. Dobson, Bristol; Mr. Murdoch, Shrewsbury; Dr. Pierce; Mr. Poles, London; Dr. J. Ross; Dr. Hardwicke, London; Dr. Semple; Dr. Carter; Mr. Harrison, Liverpool; Mr. Shuter; Mr. Crowther, Congleton; Mr. Jackson, Cardiff; Mr. Teale, Scarborough; Dr. Luce; Dr. Fleming, Glasgow; Mr. Rendle, Sheffield; Mr. Carpenter, London; Mr. Woodcock, Bradford; Mr. Fox, Dover; Dr. Diver, Caterham; Dr. O'Connor, Mile-end; Dr. Sherlock, Powick; Mr. Atkinson, Rippenden; Mr. Roberts, Manchester; Mr. Rix, Bradford; Dr. Wallich, Herne Bay; Mr. Hobson, Great Berkhampstead; Mr. Clark, Farnham; Mr. Pottle, London; Mr. Hanbury, London; Dr. Gairdner, Glasgow; Mr. Smith, Greenwich; Mr. Whitford, London; Mrs. Spelsbury, London; Dr. Joquiski, London; Mr. Baker, Edinburgh; Dr. Corbet, Beauly; Mr. Forrest, Manchester; Mr. Markby, Fyfield; Mr. Bond, London; Mr. Parnell, Worcester; Mr. F. G. Brown, London; Mr. Williams, Bristol; Mr. Cutter, Hanover, U.S.A.; Mr. Sotheron, York; Dr. Jeffries, Boston, U.S.A.; Mr. Osborn, London; Mr. Garner, Mr. Force, Exeter; Surgeon-Major, E. Kurrachee, East Indies; Medicus; A Voice from India; The Director-General of the Army Medical Department; Royal Institution; Decimus; A General Practitioner; Novice; The Secretary of the Chichester Infirmary; T. H., Harborne; &c. &c.

LETTERS, each *with enclosure*, are also acknowledged from — Mr. Palmer, London; Mr. Sale, Dartford; Mr. Palmer, Bradford; Mr. Ryley, Birmingham; Mr. Wallis, Wakefield; Mr. Barrse, Rotherham; Mr. Armstrong, Normanton; Dr. Grove, St. Ives; Mr. Walker, Kilburn; Mr. Duncalfe, Albrighton; Mr. Edwards, Ystradgynlais; Messrs. Lindop and Thomson, Newport; Mr. Bogg, Louth; Messrs. Davies and Mair, Morriston; Dr. Creed, Greenwich; Dr. Highmore, Sherborne; Dr. Grant, Longton; Mr. Veale, Leeds; Mr. Hayward, Bristol; Dr. Lister, Newton-le-Willows; Dr. Waters, Liverpool; Mr. Laver, Carlisle; Messrs. Abbott and Sons, Christchurch; Mr. Smith, Woodley; Dr. Stephenson, Fawley; Mr. Carson, Alston; Mr. Holmes, Caistor; Dr. Coward, Huddersfield; Mr. Whidborne, Topsham; Mr. Earlam, Abbots Bromley; Mr. Baker, York; Mr. Greenall, Chorlton-on-Medlock; Messrs. Harvey and Reynolds, Leeds; Mr. Loame, Dawley; Messrs. Argles and Stenham, Maidstone; Mr. Paine, Midhurst; Mr. Sheldon, Keelby; Dr. Plumer, Glasgow; Rev. A. J. D'Orsey, London; Dr. Philpot, Peckham-rye; Mr. Williams, Brentford; Dr. Akerman, London; Messrs. Moore and Hoctar, Brackley; Mr. Sampson, York; Mr. Concher, Glasgow; Mr. Houghton, Preston; Mrs. Wicks, Bicester; Dr. March, Bradford; Mr. Mason, York; Dr. Gramshaw; Mr. Leggatt, Bantry; Mr. Grote, Silverdale; Mr. M'Intosh, Edinburgh; Sanitas; The Secretary, Hospital for Diseases of the Throat; A. E. B., Aylesbury; G. P. O., Ballendalloch.

Newcastle Daily Chronicle, Manchester Guardian, Liverpool Daily Courier, Waitman, Western Morning News, Hull and Eastern Counties Herald, Cork Constitution, Sussex Daily News, East London Observer, Liverpool Daily Post, Carlisle Journal, Huddersfield Daily Chronicle, Brighton Guardian, and *Isle of Man Times* have been received.

Medical Diary for the ensuing Week.

Monday, March 8.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND. — 4 P.M. Prof. W. K. Parker, "On the Structure and Development of the Skull."
MEDICAL SOCIETY OF LONDON.—8 P.M. 102nd Anniversary.

Tuesday, March 9.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. A. H. Garrod, "On Animal Locomotion."
ROYAL MEDICAL AND CHIRURGICAL SOCIETY. — 8½ P.M. Dr. Wm. Millar Ord, "On Urinary Crystals and Calculi: the circumstances determining their Form and Production."

Wednesday, March 10.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND. — 4 P.M. Prof. W. K. Parker, "On the Structure and Development of the Skull."
ROYAL COLLEGE OF PHYSICIANS OF LONDON. — 5 P.M. Dr. Greenhow, "On Addison's Disease."
HUNTERIAN SOCIETY.—7½ P.M. Council Meeting.—8 P.M. Mr. D. De Berdt Hovell will introduce a discussion on "Ventilation in the Treatment of Scarlatina."
EPIDEMIOLOGICAL SOCIETY. — 8 P.M. Dr. Geo. H. Evans, "On Arithmetical Questions involved in the Rise and Progress of Epidemics."

Thursday, March 11.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
ROYAL INSTITUTION.—3 P.M. Prof. Tyndall, "On Electricity."

Friday, March 12.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND. — 4 P.M. Prof. W. K. Parker, "On the Structure and Development of the Skull."
ROYAL COLLEGE OF PHYSICIANS OF LONDON. — 5 P.M. Dr. Buzzard, "On Life, and on Vital Action in Health and Disease."
ROYAL INSTITUTION. — 9 P.M. Weekly Evening Meeting. — 9 P.M. Prof. Abel, "On Accidental Explosions."
CHEMICAL SOCIETY OF LONDON. — 8½ P.M. Dr. T. T. Whipham: "Fatal Pleuro-pneumonia in an Opium-eater."—Mr. Barwell, "On a Case of Acute Necrosis in which the whole Shaft of the Ulna was removed."—Dr. Thomas Dowse, "On an unusual Case of Lead-poisoning."

Saturday, March 13.

ROYAL FREE HOSPITAL.—Operations, 9 A.M. and 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. W. K. Clifford, "On the General Features of the History of Science."

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